Oil, Paint and Drug Reporter

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Fuerst Bros. & Co., N. Y.
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Lehn & Fink, New York.
Magnus, Mabee & Reynard, N. Y.
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National Aniline & Chemical Co., New York.
National Essential Oils Distilling Co., N. Y.
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Magnus & Lauer, N. Y.
Powers, Weightman & Rosengarten, Phila.

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Formaldehyde.
C. Bischoff & Co., N. Y.
Fries Bros., New York.
Fuerst Bros. & Co., N. Y.
Heyden Chem. Works, N. Y.
A. Klipstein & Co., N. Y.
Merck & Co., New York.
H. A. Metz & Co., New York.
National Aniline & Chemical Co., Buffalo and N. Y.
Perth Amboy Chem. Works, New York.
Roessler & Hasslacher Chem. Co., New York.
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Geo. F. Taylor Co., N. Y.
R. J. Waddell & Co., N. Y.
W. H. Whittaker, New York.

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International Smokeless Powder & Chemical Co., N. Y.
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National Lead & Oil Co., Pgh.
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H. W. Dopp Co., Buffalo.
D. R. Sperry & Co., Batavia, Ill.
F. J. Stokes Mach. Co., Phila.

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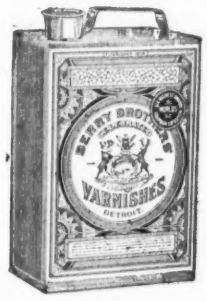

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NEW YORK, APRIL 29, 1907.

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ANXIETY IN RE NEW DRUG REGULATION RELIEVED.

The publication last week by the Reporter of the declaration by the Secretary of Agriculture of his determination to put a stop to the many current false statements as to the character of the guaranty filed with the Department of Agriculture by manufacturers, has aroused great interest. The article referred to contained the substance of a conversation with Secretary Wilson wherein he announced that in view of the lying use which many unscrupulous manufacturers made of the serial number label by advertising that it represented a guaranty of the United States Government, he was constrained to cause an amendment to be made to Regulation 9, Section B, of the Pure Food and Drug Act, which provides that "a serial number shall appear on each package of goods sold under such guaranty with the words, "Guaranteed under the food and drug act, June 30, 1906," and that hereafter serial numbers shall not be referred to on labels and advertising literature as "guaranty numbers," but must appear in the following from "No. — Guaranteed by the manufacturers (or dealers)."

It is to be regretted that the Secretary should be driven to such a course by the actions of a few unscrupulous parties who as matters now stand have not only worked themselves an injury, but have caused considerable apprehension to reputable manufacturers who fear that it will cause them not only much inconvenience and anoyance but considerable financial loss, as they construe the announcement to mean that hereafter labels prepared under the original regulations will not be permitted to be used. It will, however, be gratifying to the trade to learn that no action is in contemplation that will seriously embarrass any manufacturer who undertakes to comply with the regulations in good faith.

In the first place, it should be understood that the decision of the Department of Agriculture in this matter does not go into force until approved by the Secretaries of the Treasury and of the Department of Commerce and Labor, for the reason that the change would operate to amend the spirit and letter of the existing regulations. The Secretary of Agriculture has full authority to make and promulgate rulings in accordance with the joint regulations promulgated by the three departments, but the acquiescence of a majority of the three secretaries is essential to the amendment of the regulations themselves. There is little doubt that the change decided upon by the Department of Agriculture will be acquiesced in by the other departments, but until the amendment of the regulations is formally adopted and promulgated it will not be necessary for the trade to act upon it, although manufacturers will consult only their own convenience if they refrain from ordering large quantities of labels, etc., on which the guaranty numbers appear in accordance with the original regulations.

Dr. Wiley, chairman of the Pure Food and Drug Commission, which will prepare the amendment for the approval of the three secretaries, said to the Reporter's Washington correspondent last week that the Commission would give careful consideration to the fact that many manufacturers now have on hand large stocks of labels, literature, wrappers, containers, etc., on which guaranty numbers have already been printed, and that in promulgating the amendment due allowance would be made so that no one would suffer loss or embarrassment.

One of two plans will probably be followed: either manufacturers will be permitted to use their stocks or labels, literature, etc., until the same are exhausted, or it will be provided that the new regulation shall not go into force until a date in the future sufficiently remote to enable the average manufacturer to work off all his old printed matter. Of course it will be understood that in no event will the new regulation affect goods on the market at the time it goes into force, or goods to which labels have already been attached, whether they are in the hands of the manufacturer or not.

At the suggestion of Dr. Wiley and with a view to reminding manufacturers and dealers of the terms of the existing law and regulations, our correspondent appends those provisions thereof which relate specifically to the adoption and use of guaranty numbers. Section 9 of the pure food and drug law provides as follows:—

"Sec. 9. That no dealer shall be prosecuted under the provisions of this act when he can establish a guaranty signed by the wholesaler, jobber, manufacturer or other party residing in the United States, from whom he purchases such articles, to the effect that the same is not adulterated or misbranded within the meaning of this act, designating it. Said guaranty, to afford protection, shall contain the name and address of the party or parties making the sale of such articles to such dealer, and in such case said party or parties shall be amenable to the prosecutions, fines and other penalties which would attach in due course to the dealer under the provisions of this act."

The regulations drafted in accordance with the above provision are as follows:—

"(a) No dealer in food or drug products will be liable to prosecution if he can establish that the goods were sold under a guaranty by the wholesaler, manufacturer, jobber, dealer or other party residing in the United States from whom purchased.

"(b) A general guaranty may be filed with the Secretary of Agriculture by the manufacturer or dealer and be given a serial number, which number shall appear on each and every package of goods sold under such guaranty, with the words 'Guaranteed under the food and drugs act, June 30, 1906.'

"(c) The following form of guaranty is suggested:—

"'I (we) the undersigned do hereby guarantee that the articles of foods or drugs manufactured, packed, distributed or sold by me (us) [specifying the same as fully as possible] are not adulterated or misbranded within the meaning of the food and drugs act, June 30, 1906.

"'[Signed in ink.]

"'[Name and place of business of wholesaler, dealer, manufacturer, jobber or other party.]'

"(d) If the guaranty be not filed with the Secretary of Agriculture as above, it should identify and be attached to the bill of sale, invoice, bill of lading or other schedule giving the names and quantities of the articles sold."

It will be noted that the proposed amendment to the regulations will modify the text of sub-division b of the above section so far as it relates to the printing of the serial number on packages of goods.

OIL FIELDS OF CALIFORNIA.

The oil industry of California has grown to such proportions that the United States Government has made the fields of that state the subject of a thorough examination, which has been conducted by the Geological Survey. The reports of the Survey embrace three monographs, and are unusually exhaustive in scope and detail. The first two were published at length in the issues of the Reporter of April 15 and 22 respectively, and the last of the series will be found in to-day's edition. The first deals with the Los Angeles district, the second with the Puente Hills district and the third and last with the Santa Clara Valley district.

Before beginning a general discussion on the features of these monographs it will be interesting to call attention to the remarkable growth of the oil industry throughout California during the last three decades which mark the period of time since oil became there a sufficient factor to enter into the statistics. The outturn of oil was first tabulated for record in 1876, when the production for the entire state was reckoned at 12,000 barrels. Previous to this California, it was estimated, had yielded 175,000 barrels.

Up to and including 1879 the outturn showed a small but steady annual increase, the yield for the last named year being less than 20,000 barrels. In 1880 development was more pronounced, production was more than doubled, and for many years, with few setbacks, the state went rapidly ahead. By 1885 she was credited with 325,000 barrels and two years later with 678,000. Then came a sudden falling off. From 690,000 barrels in 1888 the outturn fell in 1889 to 303,000, and it was five years before the figures again showed over 600,000 barrels. In 1894 the yield was 705,969 barrels, in 1895 the million mark was passed, and from this time on the development has been rapid. The year 1901 yielded 8,742,500 barrels; 1902, 13,973,500; 1903, 24,337,828; 1904, 28,476,025, and 1905, 35,671,000, but 1906 saw a decline of approximately 8,000,000 barrels, the production last year being estimated at between twenty-five and twenty-six million barrels.

The subjoined table gives the oil production in California by years to the close of 1906:—

	Barrels.
Previous to 1876 (estimated)	175,000
1876	12,000
1877	13,000
1878	15,227
1879	19,858
1880	40,552
1881	99,862
1882	128,636
1883	142,857
1884	262,000
1885	325,000
1886	377,115
1887	678,572
1888	690,333
1889	303,220
1890	307,360
1891	323,600
1892	385,049
1893	470,179
1894	705,969
1895	1,208,412
1896	1,252,777
1897	1,903,411
1898	2,257,207
1899	2,292,123
1900	4,329,950
1901	8,742,500
1902	13,973,500
1903	24,337,828
1904	28,476,025
1905	35,671,000
1906 (estimated)	26,000,000
Total	156,371,182

The relative proportion in yield of the various producing districts may be gathered from the following table for 1905, the last authentic figures completed:—

Oil districts.	Total production for 1905.	Shipments for 1905.
Kern River	14,000,000	9,500,000
Santa Maria and Lompoc	5,300,000	4,190,000
Los Angeles and Salt Lake	3,000,000	2,778,000
Coalinga	8,869,000	8,946,000
Fullerton & Brea Canyon	1,750,000	1,727,760
Puente and Whittier	960,000	938,200
Newhall	150,000	104,000
Ventura	350,000	350,000
Summerland	75,000	85,400
Sunset	400,000	300,000
Midway	70,000	.....
McKittrick	720,000	720,000
Sargents	200,000	29,800
Arroyo Grande	5,000	.....
Halfmoon Bay	2,000	.....
Totals	35,671,000	29,636,160

Oil districts.	Field stock Dec. 31, 1905.	Wells producing.	Wells drilling.	New derricks.
Kern River	15,000,000	680	6	5
Santa Maria and Lompoc	1,310,000	73	42	1
Los Angeles and Salt Lake	350,000	300	20	12
Coalinga	30,000	243	26	9
Fullerton and Brea Canyon	100,000	150	3	2
Puente & Whittier	160,000	94	8	6
Newhall	50,000	52	1	1
Ventura	60,000	246	2	2
Summerland	.....	120	1	1
Sunset	350,000	38	3	4
Midway	75,000	21	3	3
McKittrick	120,000	90	2	1
Sargents	.....	5	2	..
Arroyo Grande	5,000	1	3	4
Halfmoon Bay	3,000	3	1	1
Totals	17,613,000	2,116	123	52

Note.—Field stocks include oil in receiving tanks awaiting shipment.

The monograph covering the Los Angeles district comprises the productive oil fields immediately north and west of the city from fifteen to twenty miles from the coast in the central part of California. The oil bearing zone, according to the report, begins in the city itself, near the Catholic cemetery, on Buena Vista street. It trends first westward and then northward, extending into the region south of Colegrove and two miles south of this place is the well known Salt Lake field, which was given its name by the principal company operating there. The area extending eastward from the Sisters' Hospital at Los Angeles to the eastern limit of the territory or the Catholic cemetery is described in the report on the eastern field, and that extending from the hospital to a line passing northward through West Lake as the central field, that extending northward from the region about the Baptist College as the western field, while that on the Rancho la Bria, southwest of Colegrove as the Salt Lake field.

As can be seen by reference to the table of production for the various years, oil development in California did not receive much impetus until as late as 1894 and 1895. Four periods of activity mark the development of the Los Angeles fields. The first, which marked the opening of the central field, dates from late in 1892 to 1895. The second, when the eastern field was developed, includes 1896 and 1897. The third takes in the exploitation of the western field from 1899 to 1900, and the fourth marks the development of the Salt Lake field from 1901 to the present day.

The first well drilled in the eastern field was sunk in 1896 at the corner of Adobe and College streets. It was successful and development continued rapidly throughout the district, but few wells have been sunk since 1897. The number at present in operation is 270, of which 211 are pumping, and 59 are either not working or have been abandoned. They yield from 1 to 12 barrels of oil each per day. The oil is described as black and varying in gravity from 16 to 19 degrees B.

The first oil produced in the central field was in 1892, when the first well was sunk and development work followed rapidly. Most of the wells were sunk between 1897 and 1900. At present they number 516, of which 205 are in operation. They vary in depth from 500 to 1,400 feet. The yield of these wells varies according to Eastern and Western location, the Eastern wells producing 2 to 8 barrels per day and the Western 12 to 15 barrels, the general average being about 4 barrels. The gravity of the oil ranges from 14 to 16 degrees B.

The Salt Lake field embraces an area of about one mile square, within which are some 75 to 80 wells belonging to the Salt Lake and other companies. They produce from 20 to over 1,000 barrels a day each, the average being about 100 barrels. The gas pressure in this region is heavy and causes most wells to gush considerably on first being opened. The gravity varies from 11 to 22 degrees, the average for the field being 16 to 18 degrees.

Concerning the probabilities of future development, attention is drawn to the history of oil production in

California, and the natural deduction therefrom that any speculative guess would be hazardous. The writer of the report advances the deduction that from the evidence both geological and from actual exploitation, the territory of the eastern, central and western fields has been largely, if not over developed.

"The storage facilities of the eastern, central and western field," says the report, are largely confined to wooden tanks, many of which are small, so that operators are unable to hold their oil for any great length of time. At Salt Lake, however, there is storage capacity of 39,000 barrels, and steel tanks holding 20,000 to 55,000 barrels, are largely used in this field. The pipe line facilities are not extensive, and much of the oil is delivered by tank wagon.

The second monograph deals with the oil districts of the Puente Hills. This district of Southern California is now credited with a production of upwards of 2,000,000 barrels per annum.

The district is described as situated in the southwest corner of the state beginning at a point about 12 miles south by east of Los Angeles and extending in a generally east southeasterly direction for 22 miles to Santa Ana River covering an area of about 140 square miles. The western and northern parts lie in Los Angeles county and the southeastern part is divided between San Bernardino county on the north and Orange county on the south. They are situated 35 miles from San Pedro, the principal deep water harbor of Southern California.

The district of the Puenta Hills is subdivivided into several fields as follows:—The Whittier fields, La Habra Canyon field, the Puente field, the Brea Canyon field, the Olinda field and the Chino field.

The Whittier fields lie on the southern slope of the Puente Hills within a mile of Whittier and extend in a southeast direction about two and one-half miles. The sucessful companies of the district whose wells have made a good showing have been the Home, Turnbull, Canyon, Turner, Fidelity, Strong, Central, Warner and Murphy oil companies. The results obtained by other exploiters have not been remunerative.

La Habra Canyon comprises the center part of the Puente Hills, midway between the Whittier and Puente fields. The Union and New England oil companies have been the only operators. The wells are not large producers and the oil is described as comparatively heavy. A maximum depth of 2,000 feet is reported, though the majority of the wells are much shallower.

The Puente Oil Company is the owner of the wells of the Puente oil fields, which are described as lying along the crest of the Puente Hills. The district is about one and one-half miles northwest of the mouth of the Brea Canyon. The wells are among the oldest of California and date back to 1885. They have never been known as large producers, but have been comparatively steady in outturn. Some of the newer wells have yielded from 100 to 200 barrels per day, but the production has diminished of lots. The oil is of an olive green to black color and ranges in gravity from 22 to 35 degrees B.

The Brea Canyon breaks away from the Puente Hills five miles north northeast of Fullerton. The only successful concerns that have operated in this district have been the Brae Canyon, the Union and the Menges. The wells of the Brae company vary in depth from 600 to 2,000 feet and yield from 12 to 1,000 barrels or thereabouts a day. The gravity of the oil ranging from 18 to 26 degrees B.

Some six miles northeast of Fullerton lies the Olinda field just within the southern edge of the Puente Hills. It connects with the main line of the Atchison, Topeka and Santa Fe Railway through a branch from Richfields four miles south. The wells number over 100 and are chiefly along the outer ridge. They are wonderfully productive, having yielded from 700 to 1,000 barrels per day. The maximum depth of these wells is reported to be 3,000 feet, and the gravity of the oil varies from 23 to 35 degrees B.

"The Chino field," says the report, "occupies a small area on the crest of the divide between Soquel Canyon and the Chino Valley, five miles southwest of the town of Chino.

The writer of the report questions whether petroleum will be obtained north of the line of maximum disturbance in the Puente fault zone, and thus far the wells in this position have not been productive. The yield of individual productive wells in the Puente Hills has ranged all the way from 1 to 1,000 barrels per day, with fortune favoring the Brea Canyon field as against the Puente, while the wells of the Whittier fields produce from 2 to nearly 175 barrels per day, with some few exceptions running as high as 400 barrels when first sunk. The gravity of the oil runs from 28 to 34 degrees B. The Olinda field has yielded both low and high-grade oil with a maximum of 35 degrees. To Olinda have been credited six gushers, one of which is said to have flowed for a short time at the rate of 20,000 barrels per day.

The oil of the Puente Hills, with the exception of Olinda, is nearly all stored in circular metal tanks. The latter is held in open earthen reservoirs. The tankage of the Whittier fields is estimated to be over 200,000 barrels, that of the Puente field is placed at over 1,000,000 barrels, Brea Canyon approximately at 85,000 barrels, and Olinda at about 200,000 barrels.

The Union Oil Company, which owns all the longer pipe lines in the district, also has storage capacity of close to 150,000 barrels at Norwalk, the center of its pipe line system.

The third and final monograph upon the oil districts of Southern California embraces what is known as the Santa Clara Valley district.

The fields comprise those north and those south of Santa Clara. The former include the Ojai Valley, the southern Sulphur Mountain field, the Silver Thread or Silver Creek field, the Sespe fields, the Pole Canyon and the Hopper-Piru fields. Those south of Santa Clara may be said to be divided into four fields, lying at intervals along the front of Oak Ridge and the Santa Susana Mountains. They embrace from west to east, the Bardsdale and the Torrey-Eureka-Tapo fields, on the north flank of Oak Ridge, the Pico field, comprising Pico, Dewitt, Towsley, Wiley, Rice and East canyons, along the Santa Susana mountains, and the Elsmere field, wherein are the Elsmere and Placerita wells.

Of the first group the Ojai fields include chiefly the wells of the Union Oil Company on the Piru ranch, and a few sunk by the Whidden-Double, Sobra Vista and Santa Paula Oil companies. The Sulphur Mountain fields have not proved very productive. When first drilled some of the wells yielded from 25 to 50 barrels a day, but the product of others does not now average over 1 or 2 barrels. The depth ranges between 150 and 500 feet, with occasional holes of 1,800 or 2,000 feet. Two varieties of oil are found in this field, one black, with a gravity of 19 to 30 degrees, the other green with a gravity of 30 to 32 degrees B. The first well in the field was dug twenty-five years ago.

The wells of the Silver Creek or Silver Thread district, attain a maximum depth of a little over 1,000 feet. They are small producers, yielding at best about 12 barrels of green oil per day. Those fields south of Santa Paula Ridge are reported to have at one time yielded 200 or more barrels, but this outturn now is down to between 5 and 20 barrels of light greenish oil of 35 degrees B.

The Sespe fields take in a portion of the territory north of the Santa Clara Valley. The wells are situated at the base of Sulphur Peak, and in the vicinity of Devilsgate. The Ivers wells are still lower in the canyon and other wells of the district are the Happy Thought wells, and the Foot-of-the-Hills.

No productive wells have yet been drilled in the Pole Canyon, though as it connects two productive areas, it is thought to have fair prospects and the writer in his report deals at length on its formation and structure. The Hopper-Piru fields are situated in a very rugged piece of country. They comprise the San Cayelano, Sunset, Fortuna, Nigger Canyon, Modelo Canyon, Piru Oil and Land Company and the Holser Canyon well.

The Bardsdale field includes South Mountain Ridge as far east as the vicinity of Chaffee Canyon and a single field has been developed in the South Mountain Ridge opposite Bardsdale. Oil in this section is found at depths of 300 to 815 feet. It is black in color and its quality is said to range from 23 to 32 degrees B. The wells of the Union Company in this section have been steady producers for a number of years. The Torrey-Eureka-Tapo field includes three productive areas. Those of Torrey, Eureka and Tapo. Torrey embraces an area of about one square mile and contains some 50 or 60 wells. The drillings in the main fork of Tapo Canyon have yielded four wells now producing, though several others were likely in operation in earlier days. They yield from 5 to 40 barrels of oil per day of a quality of 20 to 24 degrees B.

To the Santa Susana Mountains belong the productive fields of Pico, Dewitt, Towsley, Wiley, Rice and East canyons all on the northern slope. The Elsmere field comprising that portion of the Newhall district, east of Newhall Creek. The companies operating there from south to north include the Enterprise, Zenith, Eureka, Crude, Pearl, Santa Ana and Pacific Coast. A little further north is a group of three wells with others scattered in Placerita Canyon, five miles east of Newhall.

From the foregoing it will be seen that California as a mineral oil producing State has within comparatively few years taken an enviable position in the front rank of oil producing countries.

THE PHARMACOPŒIA AND PURE DRUG LAW.

In the last issue of the Reporter we referred editorially to certain changes in the United States Pharmacopoeia and the effect of the same upon the distribution in this country of certain crude drugs and their extracts. Since this editorial appeared it has apparently dawned upon the Washington authorities that the relations between the United States Government and the Pharmacopoeia Convention are not as well defined as they might be, and that they should be more fully and more generally understood.

The publication of the Pharmacopoeia, as is well known to the drug trade, is entrusted to a body of men, which has no official recognition. That the work is well done and thorough, and that the Revision Committee appointed by the Convention is in every sense competent, has never been questioned, but it may occur to the outsider that if the Government of this country sets its seal of approval on this work by accepting the standards established therein as official, that it should go further and stamp an authoritative imprint upon the book itself.

When an important change becomes necessary in pharmacopoeial standards, no one coming under Government authority or control is responsible, and officials, like customs appraisers, may well be excused for pausing before accepting the responsibility of conforming to a change, which has no definite official source. This indeed was what did happen on the last supplementary revision some weeks ago.

Now that the Pure Food and Drug Law is in active operation and requires so many rulings dependent upon the Pharmacopoeia for interpretation, the lack of affinity between the authority of the Revision Committee and the Departments at Washington is all the more pronounced.

A practical illustration of this was shown in the visit of Professor Remington, Chairman of the Pharmacopoeial Revision Committee to Washington last week where he and Dr. Wiley, chief of the Bureau of Chemistry, Department of Agriculture, met and discussed pharmacopoeial matters. Professors Remington laid before the latter drafts of all corrections or revisions so that, as our correspondent writes us from Washington, "their scope might be fully understood by the Pure Food and Drug Commission." Dr. Wiley expressed his entire willingness to be guided by the Pharmacopoeia as modified. In a conversation with our correspondent, he referred to all the "so-called corrections as rational and proper" and "that no drug defined in the United States Pharmocopoeia or National Formulary shall be deemed adulterated under the meaning of the act, if the standard of strength, quality or purity be plainly stated upon the package, although the standard may differ from that determined by the test laid down in the United States Pharmacopoeia." A full report of Dr. Wiley's talk is given elsewhere in this issue wherein he makes it plain that the law will "automatically" adjust itself, with whatever changes may from time to time be made in the standard drug work.

TRADE ITEMS.

(For other Trade Items see table of contents on page 21.)

The offerings at the cinchona bark auction on May 2 will consist of 9,190 packages.

The placing of large orders in oxalic acid has resulted in a spirited advance in that commodity.

J. C. Kiefaber, vice-president of the Tower Varnish and Dryer Co., Dayton, Ohio, was in the city last week.

William Thompson, a representative of the Theodore Metcalf Co., of Boston, visited the local trade during the week.

The new indigo crop thus far is progressing favorably and predictions point toward a remarkably good yield the coming season.

The American Color Company, with a capital stock of $2,000,000 has filed articles of incorporation in Camden, N. J. The company is to manufacture dye stuffs.

W. S. Gray, prominent in local drug circles and president of the Drug and Chemical Club, left with his family on the Kaiser Auguste Victoria, Thursday for a six weeks' sojourn in Europe.

The Scotch Tone Remedy Co., of Oklahoma City, has been incorporated with a capital stock of $5,000, by C. B. Young and L. M. Young, of Oklahoma City; E. M. Herdman, of Oshkosh, Wis.

The Kansas Board of Railroad Assessors has raised the assessed valuation of the Standard Oil Company's property in Kansas thirty per cent. over the value returned by the company, $3,727,000.

Representatives of the Glass Bottle Manufacturers' Association and the Glassblowers' Association will meet in Pittsburgh May 3, to decide upon a date for the beginning of the usual summer suspension.

The Woronoco Chemical Company, of Westfield, Mass., has been organized for the purpose of manufacturing medical specialties. It has been incorporated under the laws of Massachusetts with a capital of $10,000.

The whaling bark Greyhound returned to New Bedford last week after a four years' cruise. She had taken 4,625 barrels of oil, but had previously shipped it all home except 700 casks, which she brought into port with her.

S. M. Moneypenny, of the National Aniline and Chemical Company, accompanied by Mrs. Moneypenny, left last week on a two months' pleasure trip abroad. They will visit England, France, Italy and other European countries.

Attention is called to the advertisement in this issue of Siemon & Elting, importers and makers of colors, chemicals and compounds. The firm, whose office is at 194 Front street, make a specialty of fine dry colors both foreign and domestic.

The Newbern Cotton Oil and Fertilizer Co., of Newbern, N. C., will rebuild its plant, which was recently destroyed by fire. The new structure will be 70x140 feet, equipped for a capacity of 80 tons of cottonseed per day, and cost from $30,000 to $40,000.

P. Austin Tomes, of the Atlas Portland Cement Co., New York, will read a paper entitled, "Concrete Construction for Cotton Mills" at the eleventh annual convention of the American Cotton Manufacturers' Association in Philadelphia May 13 to 18.

Reports from Newark, O., note that Edward H. Everett, of that city, and August Busch, of St. Louis, have sold their interests in the Illinois oil field to the Standard Oil Company for $750,000. This is one of the best oil territories developed recently. Everett, it is said, recently drilled in the largest oil well found in Illinos.

J. S. Watson, manager of the Link-Belt Company's drive chain department, sailed for Europe via the Hamburg-American line steamship Amerika, on April 25. While abroad Mr. Watson will visit the chain making plant of Hans Renold, at Manchester, England.

A report from Los Angeles, Cal., states that plans have been drawn up and contracts practically closed by the Pacific Coast Soda Company, with Greenleaf, Compton & Company for the construction of a $25,000 factory on the company's property at Inglewood.

The $10,000 damage suit instituted against the Virginia-Carolina Chemical Company by A. H. Taylor, has been dismissed by Judge Felton. Taylor, who was employed as night watchman at the works of the company, fell into a vat on August 31 last, and was terribly burned.

Articles of incorporation have been filed at Baltimore, Md., by the Southern Substitute Turpentine Co., Baltimore, Md., to manufacture oils, paints and substitutes for the same; incorporators:—Ephraim Macht, Samuel Wurenburg and John Weeks, of Baltimore. Capital stock, $300,000.

At the annual meeting of the stockholders of the Crowley Oil and Mineral Co. held at Crowley, La., the following directors were elected:—W. W. Duson, C. C. Duson, P. L. Lawrence, Myron Abbott, P. S. Lovell, Hampden Story, J. Frankel, John A. Gebert, W. C. Tylerr, Jr., Thomas R. Smith and L. L. Lyons.

A very picturesque booklet describing a variety of scientific cottonseed oil mill machinery has been issued by the Foos Manufacturing Company of Springfield, Ohio. The booklet is profusely illustrated and interesting information is given about the scientific attrition mills, cake breakers, disc hullers, etc.

The International Chemical Company has purchased from Anton Meyers the property at Canal and Thirty-first streets, Chicago, for $49,000, subject to an incumbrance of $10,000. The land fronts 150 feet and is improved with four-story brick dwellings, each 50 by 25 feet. The transaction was negotiated by Dillon & Co.

As far back as 1880 the United States imported half a million pounds of hops, and the amount grew to 2,000,000 pounds in 1882, since which time the amount has ranged from that quantity to 3,000,000 or 4,000,000 pounds annually, with the exception of two or three years, until 1905, when the imports rose to 10,000,000 pounds.

A meeting of the joint legislative committees of the National Paint, Oil and Varnish Association, the Paint Manufacturers' Association of the United States and the International Association of Master House Painters and Decorators has been called by Chairman John Dewar, of Pittsburg, to be held on May 8.

James Watt, of the firm of James Watt & Son, London, arrived last Saturday on the steamship Lucania. While in New York Mr. Watt will make his headquarters at the office of the Oil, Paint and Drug Reporter, to which address letters may be sent him. Before returning to London Mr. Watt will visit naval stores centers in the South.

According to reports from Tennessee a phosphate deposit has been located several miles north of Baxter, and another near Silver Point, in the lower end of Putnam county. An investigation will be made to determine if the deposit is found in sufficient quantities to justify the construction of a branch line from a point on the Southern to the site.

As the result of a decision on the part of the manufacturers, fires in hand window glass plants under 1,400 pots have been drawn in the neighborhood of Pittsburgh. Between 15,000 and 16,000 employes will be affected. The reason given for this closing down two months ahead of the usual time is said to be a desire to keep down stocks and prevent possible demoralization of prices.

Catalogue 16 of the C. O. Bartlett & Snow Co., Cleveland, illustrative of the mechanical dryers manufactured by the company, reached the office of the Reporter last week. As might be expected, it is both neat and complete and has the additional merit of conciseness. It tells a plain story and tells that story well. The feature of labor saving machinery is one that will appeal especially to manufacturing concerns.

The charter of the Middle Tennessee Phosphate Co. of Mt. Pleasant has been filed at Columbia, Tenn., for registration. The capital stock is $50,000. The incorporators are:—T. C. Meadors, O. L. Dorck, J. A. Coble, John Garrett and W. B. Alexander. The company has a lease to mine 100,000 tons of rock from the Kittrell farm at Mt. Pleasant and on a royalty basis of $1 a ton.

Worthless checks have been passed in the last few days on several jewelers in the Maiden Lane district in payment for jewelry and diamonds, and the police have been asked to find a distinguished looking man about 60 years old, who has a smooth face, is almost bald, but has a few gray locks. He passed the checks by representing himself as E. S. Littell, a member of a wholesale drug firm of C. S. Littell, Fulton street.

The Central Chemical Works, of Keokuk, Ia., have been somewhat impeded in the starting of their machinery at full blast, owing to a slight disablement to the new boiler. The trouble has been located and it has been found that the coils of pipe inside the boiler which carry the steam for the hating of the paraffine were insufficient in size. This will be altered and the factory will be going full blast within a few days.

A report from Baltimore states that a deal has been arranged between interests representing the Congregation of St. Stanislaus' Catholic Church, Aliceanna street, and L. Sonneborn & Co., representing the German American Chemical Company, for the purchase of the property, 1727 and 1729 Aliceanna street, which is occupied by the latter. The consideration is $8,500, and papers will be signed as soon as Mr. Sigmund Sonneborn returns from New York.

The Spencer-Kellogg Co. is endeavoring to raise bonds to the extent of $2,500,000. The bonds are for thirty years and bear interest at the rate of 5 per cent., but are subject to call on or after January 1, 1927, at par and interest. The money will be used in enlarging their present Buffalo plant and to build a plant at Edgewater, N. J., and Minneapolis, Minn. When the work is completed the Spencer-Kellogg Co. expects to have a capacity of one hundred and ninety-two presses.

A new paint manufacturing plant in Pulaski, Pa., which began business recently, has been purchased by A. C. Dinkey, president of the Carnegie Steel Co., and several other officials in that corporation, for $25,000. This concern was organized to sell paint to the Carnegie Steel Co., the Pennsylvania Railroad, the American Bridge Co. and other large consumers in Pennsylvania. It virtually will become a subsidiary of the Carnegie Company, the principal constituent company in the United States Steel Corporation.

The Birmingham Zinc and Lead Co., has been incorporated with a capital stock of $4,000. Thep rincipal offices of the company will be located in Birmingham. The purposes of the corporation are to own and operate mines and mills, to manufacture and deal in articles made of lead and zinc and to exercise all the rights and powers conferred upon bodies corporate under the laws of the State of Alabama. The following officers were elected:—J. R. Adams, president; W. C. Phillips, vice-president; J. B. Dryer, secretary and treasurer.

Important changes have been made in the pure food bill that was recently introduced in the Pennsylvania Legislature. The advisory board will be eliminated, and the responsibility of enforcing the law will be placed upon the Commissioner of the State Dairy and Food Department. The provision forbidding probity until cases have been disposed of by the courts has also been stricken out. The section, requiring a division of samples was changed to provide that every sample shall be analyzed by two chemists who must agree in the analysis.

The prediction made in an article in the issue of the Reporter of April 15 to the effect that the government would accept the decision of the United States Circuit Court of Appeals in the case of U. S. v. Colby & Company involving the dutiable classification of nigerseed oil, which was held by the court to be entitled to free entry, has been verified by the action of Assistant Secretary Reynolds, who has advised the collector at New York that no further proceedings will be directed. It is understood that a number of protests are pending at New York and other ports and that the refunds authorized by the Department will amount to a considerable sum.

Arrivals on the Scharzfels from Calcutta on Wednesday included 1,093 chests and 730 bags of shellac, 78 chests of indigo, 1,775 bags of saltpeter and 25 packages of mustard oil. Other arrivals included 285 cases of vanilla beans and 90 bales of bay leaves on the Pretoria from Guadaloupe, 20 cases of phosporic acid, 100 casks of arsenic and 4 casks of camphor on the Horncap from Hamburg, 79 cases of balsam copaiba and 43 cases of aloes from Curacao on the Caracas and 10 cases of balsam copaiba and 4 bales of ipecac from Bahia on the Byron.

A remarkable and spectacular fire started last Thursday in the William Zoeller Packing Co.'s plant, Spring Garden avenue, Allegheny, opposite Pittsburgh. When the fire was thought to be under control, a large fireproof warehouse, in which were stored 500,000 pounds of lard, suddenly burst into flames. All efforts to extinguish the fire in this department were futile, and the firemen finally fastened the iron doors of the building shutting in the burning lard. The fire practically burned itself out, and while no official estimate of the loss can be given, it was said that $300,000 would be a conservative estimate. The loss is partly covered by insurance.

(For other Trade Items see table of contents on page 21.)

Proprietary Association Meets in New York May 15.

Orient C. Pinckney, secretary of the Proprietary Association of America, will shortly send out the call for the annual convention of that organization which will be held at the Hotel Astor in this city, May 15, 16 and 17. The association has not convened since the passage of the pure food and drug law and will likely have much of interest to discuss pertaining to the new regulations. The officers of the association are:—President, Frank J. Cheney, Toledo, O.; first vice-president, John W. Kennedy, Chicago; second vice-president, A. H. Beardsley, Elkhart, Ind.; secretary, Orient C. Pinckney, New York; treasurer, William S. Douglas, New York; counsel, George L. Douglass, Chicago.

Baltimore Drug Bowlers Award Prizes.

The Baltimore Drug Trade Bowling League closed its active season with a social entertainment last Thursday evening, following which prizes were awarded the winning teams. The Andrew Baumgartner Company team won the silver cup for the largest number of games taken, the prize for the highest average and for the largest number of pins made in any one contest. James Bailey & Sons were second, McCormick & Company third, the H. B. Gilpin Company, fourth, the Loewy Drug Company fifth and the Calvert Drug Company were sixth. The highest individual average and the highest total for three games was made by Bruno Fairley, of James Daily & Sons.

Government Suit Against Drug Interests.

TESTIMONY IN GOVERNMENT SUIT TO BE TAKEN AT INDIANAPOLIS, MAY 7.

The taking of testimony in the long pending suit of the United States against the National Wholesale Druggists Association, the National Association of Retail Druggists and certain individual members of the Proprietary Association of America will begin May 7 at Indianapolis. The hearing will be before Special Master in Chancery Noble C. Butler. There have been summoned to appear as witnesses Edward W. Stucky, retail druggist, Illinois and Ohio streets; Henry J. Huder, retail druggist, 22 West Washington street, William J. Mooney, wholesaler, of Mooney-Mueller Drug Co., Edward A. Stuckmeyer, retail druggist, 1410 Prospect street; Albert H. Graves, 1201 Northwest street; John N. Carey, of the Daniel Stewart Drug Co. and president of the National Wholesale Druggists Association, and Isaac N. Heims, retail druggist, Illinois and Market streets, all of Indianapolis.

Join the National Paint, Oil and Varnish Association.

Present conditions more than ever just now call for organization and trade affiliations and the Reporter has repeatedly appealed to its readers to get together and work in unison for the common cause. The chairman of the membership committee of the National Paint, Oil and Varnish Association, Mr. F. P. Cheesman, writes us along the same lines inviting new membership to the association which has done such good work ever since its establishment.

He calls attention to the fact that all firms, corporations, or individuals engaged in the paint, oil and varnish business or kindred interests may become individual members of the association, provided they are located in a place where there is no local club already affiliated with the organization. The annual dues of individual members are $5.00, which entitle them to full privileges, including a vote at the next annual convention.

Mr. Cheesman urges all to join that by so doing they may strengthen the power of the organization for doing good in way of necessary legislation, proper freight classification, fire insurance and other weighty and important matters. The gentlemen comprising the membership committee, who will be happy at any time to receive applications are:—Frank P. Cheesman, 100 William street, New York, chairman; F. H. Newton, Boston; A. G. Schule, Buffalo; H. R. Hamilton, Chicago; Edward Barron, Cincinnati; H. G. Ashbrook, Cleveland; L. T. Minehart, Denver; Wm. Stridiron, Detroit; F. N. Sewall, Kansas City; Dr. Hecht, Milwaukee; Geo. B. Heckel, Philadelphia; W. N. Taylor, Pittsburg; H. T. Fritsch, St. Louis, and F. C. Cutler, Waterloo, Ia.

National Lead Co.'s Statement for 1906

The annual statement of the National Lead Co. for the year ended December 31, 1906, shows total assets of $45,733,719.75, The surplus carried forward was $4,038,822.36, an increase of $484,226.16 over that of the previous year. The net earnings for 1906 were $2,499,632.16. Dividends paid during the year aggregated $1,395,744 on the preferred and $619,662 on the common stock, in all $2,015,406. President Cole, in presenting the report, said in part:—

"The foregoing statements presented in their customary form show the financial condition of your company at the close of its fifteenth fiscal year, December 31, 1906, and disclose a net profit of $2,499,632.16 as the result of the year's business. In addition to such earnings the company has an interest exceeding $600,000 in undivided earnings of other companies, which is reserved by them for working capital and other uses. After the payment of regular quarterly dividends on preferred stock and of three quarterly dividends of 1 per cent. each on the common stock, payments of which were commenced on July 1 last, the whole aggregating $2,015,406, a remainder of $484,226.16 was added to surplus account, which at the close of the period under review was $4,038,822.36."

National Association of Manufacturers.

ANNUAL MEETING TO BE HELD IN NEW YORK MAY 20 TO 22 INCLUSIVE—IMPORTAN SUBJECTS TO BE DISCUSSED.

The twelfth annual convention of the National Association of Manufacturers, to be held in this city on May 20, 21 and 22, according to the plans announced yesterday by President James W. Van Cleave, Secretary Marshall Cushing and the various committees in charge, will be the largest gathering of its kind ever held in the United States.

The speakers who it is now expected will make the chief addresses during the business meeting and at the banquet on the closing of the convention are: Secretary of Commerce and Labor Straus, Speaker Cannon, of the House; Senator Dolliver, of Iowa; Admiral Sigsbee, of the Navy; General Bell, of the Army, and Judge Prouty, of the Interstate Commerce Commission.

Reports are to be read from many of the following committees of association members, and discussions are expected on many of these subjects: Bankruptcy, Child Labor, Consular Reform, Immigration, Industrial Education, Interstate Commerce, Merchant Marine, Patents and Patent Laws, Postal Affairs, Pure Food and Tariff Reciprocity.

Change in Naval Stores Concern.

AMERICAN NAVAL STORES COMPANY ACQUIRES BUSINESS OF ROBINSON & KING, OF WILMINGTON.

Negotiations which had been in progress for some time are said to be concluded whereby the American Naval Stores Company of New York becomes the owners of the Robinson and King naval store concern in Wilmington. As a part of the deal U. M. Robinson, who, for several months past, has been manager of the Robinson & King Company, becomes the manager and official representative of the American Naval Stores Company in that city.

The firm of Robinson & King is one of the oldest business enterprises in Wilmington, it having been established more than forty years ago.

Last June the company sold out to Uel M. Robinson, a nephew of C. H. Robinson of the original firm, and F. A. Thompson, and since that time Mr. Robinson has been in active management of the business. Overtures made some time ago by the American Naval Stores are now reported to have resulted in the acceptance of the terms held out by that company and the deal has been closed, though all the details in connection with the transfer have not yet been completely settled.

New Corporations.

Hygienic Soap Granulator Co., Oswego, N. Y.; to manufacture soaps, etc. Capital, $10,000; incorporators:—Otis H. Kean, No. 140 Nassau street; John F. Almquist, No. 24 New Chambers street; Lewis J. Doolittle, No. 27 Pine street, all of New York.

Cumberland Gas Co., Freeport, Pa.; natural gas. Capital, $48,000; directors:—Bernard Way, A. L. Iseman, J. H. Gunder, Edwin B. Irwin, R. W. Shoop, Freeport, Pa.

Carolina Oil & Gas Co., Pittsburgh; natural gas and oil wells. Capital, $12,000; directors:—J. E. Johnson, Thomas H. Tyson, Charles Gulland, G. W. Miller, Jr., William Robinson, Fred Bruckman, Pittsburgh.

Canadaway Fertilizer Co., Dunkirk, N. Y.; to manufacture fertilizer, etc. Capital, $30,000; incorporators:—Andrew B. Cranston and Walter M. Ensign, Dunkirk, N. Y.; James C. Overhiser, Smith's Mills, N. Y., and others.

Anti-Auto-Tox Co., New York; to manufacture medicines. Capital, $50,000; incorporators:—E. L. Barney, Edgewater, N. J.; E. A. Monfort, No. 1390 St. Nicholas avenue; Fred Knowlton, No. 168 East 139th street, both of New York.

Standard Laboratories, New York; to manufacture drugs and chemicals. Capital, $10,000; incorporators:—John Stuart Baird, Cornwall, N. Y.; Addison W. Baird and Grace D. Baird, Union Falls, N. Y.

Jaynes Drug Co., Boston; drugs, medicines, chemicals. Capital, $50,000; presi-

dent not stated, and treasurer, N. J. MacGaffin, Boston.

Spence Co., New York; to manufacture paints and painters' supplies, etc. Capital, $10,000; incorporators:—Allen N. Spence, No. 4904 13th avenue; John R. Hatch, No. 1440 50th street, both of Brooklyn; Willis D. Rich, No. 19 Fifth avenue, New Rochelle, N. Y.

Austin Oil Co. of Barney Mills, Hornell, N. Y.; to drill for petroleum and natural gas. Capital, $10,000; incorporators:—Adelbert Austin and Sheridan Austin, Barney Mills, N. Y.; Harry K. Brown, Hornell, N. Y.

Peak Chemical Co., Peakville, N. Y.; to manufacture charcoal, lime, wood alcohol, etc. Capital, $20,000; incorporators:—Chauncey W. Peak, Emily A. Peak, Ida B. Peak, Henry Hamilton, Peakville, N. Y.

Perry Medicine Co., Boston, Mass.; drugs, medicines, chemicals. Capital, $25,000; president, Thomas Lampson, No. 88 Broad street, Boston, Mass.; treasurer, Peter S. Perry, Chelsea, Mass.; clerk, Emily Perry, Chelsea, Mass.

The Standard Rubberized Pitch Co., Point Pleasant Beach.—Manufacture rubberized pitch, etc., tar, rosin, oil, paint and varnish. Capital, $125,000; incorporators:—L. McGhee, W. R. Gulick, E. Jones, Point Pleasant.

The American Color Co.—Camden; manufacture dyes and dye products. Capital, $2,000,000; incorporators:—R. M. Seeds, A. J. Harding, M. Dennis, Indianapolis, Ind.

Union Drug Company, Brownsville, Pa.; $7,000. Directors:—Marvin C. Hess, C. C. Carter, Brownsville; H. A. Cotton, Uniontown.

Old Dominion Drug Company, Inc., Appalachia, Va. Incorporators:—J. P. Edmonds, president, Stonega, Va.; M. L. Stallard, vice-president, Appalachia, Va.; C. F. Blanton, secretary and treasurer, Big Stone Gap, Va. Capital stock—Maximum, $10,000; minimum, $2,000.

The Chemical Fuel Company of America; Jersey City, N. J. Capital, $100,000; incorporators:—B. S. Mantz, John R. Turner and L. H. Gunther. To manufacture fuel.

John E. Ellis Drug Company. Capital, $5,000; John E. Ellis, president and treasurer; A. R. Causey, first vice-president; M. E. Causey, second vice-president; M. M. Ellis, secretary.

Pueblo Wholesale Drug Company, Col. Chas. Cavender, Thomas R. Zeiger, Albert S. Booth; $100,000; Pueblo.

Empress Tilbury Oil and Gas Company, Limited, Chatham, Ont. Capital, $150,000.

The Avenue Drug Company, New Orleans, La. Capital, $5,000. To establish and operate a drug store on St. Charles avenue.

Joseph Scholl Drug Co., Burlington, N. J.; chemists, druggists, etc., manufacture Shall's pills. Capital, $500,000; directors:—John G. Scholl, Burlington, N. J.; Careton E. Scholl, Atlantic City, N. J.; Joseph E. Cheesman, Burlington, N. J.

Purity Drug Company, Chicago. Capital, $5,000; manufacture drugs and chemicals. Incorporators:—J. A. McDonnell, Arthur E. Cammage, William C. Gibbons.

(Special to Oil, Paint and Drug Reporter.)

Commissioner Yerkes' Successor.

PEARL WIGHT HAS NOT YET SIGNIFIED HIS ACCEPTANCE OR DECLINATION OF THE INTERNAL REVENUE POST.

Washington, April 26, 1907.

The Secretary of the Treasury is in receipt of a letter from Pearl Wight, of New Orleans, La., who was recently tendered the post of Commissioner of Internal Revenue, stating that it may be some days before he will be in position to signify his acceptance or declination. The secretary is disposed to believe, however, that Mr. Wight will ultimately accept but that he may not be able to assume charge of the office before June 1. Mr. Yerkes' continuance in office for another month would be a matter of much importance to all interested in any phase of the denatured alcohol question inasmuch as it would mean that the new regulations for the enforcement of the supplemental law passed by the last Congress, which goes into force September 1, would be practically completed before the present commissioner relinquished his office. The Reporter's correspondent is informed, however, that Mr. Yerkes will positively leave the bureau on May 1, in order to resume the practice of law and that if there is any delay in filling the office one of the present deputies will be appointed acting commissioner in the interim. It is an interesting fact in this connection that since deciding to resign the commissionership, Mr. Yerkes has given a great deal of attention to the new regulations and it is believed they will be very completely outlined before he leaves the bureau.

WORK OF DEPARTMENT OF AGRICULTURE.

The Department of Agriculture is cooperating heartily with the Internal Revenue Bureau in making a success of the free alcohol law. Secretary Wilson, especially, has become an enthusiast on the subject and predicts that the most sanguine expectations of the promoters of this legislation will be fully realized. In a speech just delivered before the Americus Club, of Pittsburg, Pa. Secretary Wilson says:—

"No more coal is being made, our wood fuel is getting scarce, and the supply of mineral oils will some day cease. It is high time we were looking about for sources of light, heat and power. Other countries are doing this. Alcohol meets the requirements, and starchy plants yield alcohol. One of our explorers last year found the Siberians at Tomsk growing a large variety of potato for the amount it yields. He brought back half a ton of them, which will be distributed this spring among the experiment stations. The Southern cassava, yams, and sweet potatoes will yield alcohol, as will the sugar beet. Cornocbs give 11 gallons of alcohol to the ton and sweet-corn stalks 7. Many refuse plants will be used and much unmarketable fruit and vegetable matter. The farm is ready to supply heat, light and power when other sources fail. Many localities in the West suffer for fuel in winter when storms are severe or cars are scarce. We have legislation to permit the making of alcohol without payment of taxes when mixed with something to prevent its use as a beverage—wood alcohol, perhaps. The time is surely coming when the people remote from wood, coal, or oil will arrange to grow plants rich in starch for their supply of light, heat and power. The present inquiry is along the lines of economical production, as in all new enterprises. The cornstalks of the corn belt that are not used for fodder would make very large quantities of alcohol, which would be extracted and the refuse returned to the soil or used for feed, to maintain necessary organic matter, alcohol not being a fertilizer. The Department of Agriculture is experimenting along this line, and also with regard to new devices for burning this new fuel."

The Department of Agriculture will issue a bulletin in the near future describing the tests made of various devices for burning alcohol for both heat and light.

(Special to Oil, Paint and Drug Reporter.)

Concerning Crude Materials, Wrought and Unwrought.

TREASURY DEPARTMENT REVIVES CONTROVERSY ARISING FROM OLD SUIT OF U. S. VS. ROESSLER & HASSLACHER.

Washington, April 26, 1907.

The Treasury Department is about to revive a controversy which originally arose soon after the Dingley tariff act was placed on the statute books, but which was believed to have been finally settled nearly two years ago as the result of an important victory by the importers in the United States Circuit Court of Appeals and the refusal of the Attorney General to apply to the U. S. Supreme Court for a writ of certiorari.

The issue arose over an importation by the Roessler & Hasslacher Chemical Company of certain minerals invoiced as ferrochrome, ferrotungsten, ferromolybdenum and ferrovanadium. Notwithstanding the fact that these products are largely used in the chemical rather than in the metallurgical industry, they were assessed for duty as "metals, unwrought" at 20 per cent. ad valorem under paragraph 183 of the tariff act. This assessment operated in the case of some of these products to levy a duty of more than $100 per ton and it is believed would have been absolutely prohibitory if sustained. None of the articles was specifically mentioned in the tariff act of 1897, but the importers invoked the so-called similitude clause of the tariff law, claiming that all were dutiable at $4 per ton under paragraph 122 by similitude to ferromanganese.

Upon the record in the case the Board of General Appraisers overruled the action of the collector and sustained the protest of the importer, whereupon the Government appealed to the United States Circuit Court. Here again, however, the Government lost and the case was finally presented to the Circuit Court of Appeals. In this tribunal the importers won a most decisive victory. In discussing the contention of the Government that the articles involved in the case were unwrought metals the court said:—

"The ordinary meaning of 'wrought' is worked up, elaborated, worked into shape, labored, manufactured, not rough or crude. 'Unwrought' imparts the reverse of these conditions. When one speaks of an unwrought material he means one which has not been worked into shape; one which is unlabored, unelaborated, rough and crude. But the word also implies a material which is capable of being transformed from its crude condition to an improved condition, produced by the labor to which it may be subjected. To be more specific, 'unwrought metal' implies a metal which is capable of being wrought, and not a substance which is only fit to be thrown into the crucible to be melted up with other ingredients to produce an entirely different and distinct product."

The Treasury Department recently received information to the effect that testimony is now available showing that certain of the products referred to are actually capable of being worked or "wrought" within the meaning of the tariff act and that they are employed in rapidly increasing quantities in the manufacture of certain grades of steel. On the strength of this information it has been decided to make a new case, and instructions have therefore been issued to the collector at an eastern port who has succeeded in making up a record as to an importation that presents squarely the issue the Department now desires to test.

While the Treasury Department is moved by a very laudable desire to secure as much revenue as possible from these products and incidentally to protect the domestic manufacturers thereof, the importers and consumers are preparing to care for their own interests as skillfully and thoroughly as was done in the Roessler & Hasslacher Chemical Company's case. The contest will be vigorously waged at all stages and in view of the importance of the principle involved and of the satisfactory condition of the record in the new case it is probable that the issue will finally be carried to the United States Supreme Court.

In the meantime, with a view to harmonizing the practice at all ports, Assistant Secretary Reynolds has promulgated an order directing collectors throughout the country to ignore the decision of the Circuit Court of Appeals and t oassess the products referred to under paragraph 183 of the tariff act at 20 per cent. ad valorem.

Board to Direct Food and Drug Inspection.

THE SECRETARY OF AGRICULTURE APPOINTS DR. H. W. WILEY, DR. F. L. DUNLAP AND GEORGE P. M'CABE TO SUPERVISE THE OPERATIONS OF THE FOOD AND DRUG LAW.

Hereafter the responsibility of decisions under the Pure Food law as to technical and scientific questions will be borne by a board of three. Announcement was made last Thursday of the new order. The board will be composed of Dr. Harvey W. Wiley, chief chemist; Frederick L. Dunlap, associate chemist, and George P. McCabe, solicitor of the department.

Mr. Dunlap has been selected as associate chemist, his powers being the same as those of Dr. Wiley. Thus the scientific burden will be divided and Dr. Wiley's responsibility and powers will both be reduced.

Secretary Wilson asked the President several weeks ago to select another chemist, as he desired to create such a board. The President did so after extensive correspondence with the authorities of the country. The order of Secretary Wilson creating the new board follows:—

"There is hereby created in the Department of Agriculture a board of Food and Drug Inspection. The members of the board will be:—Dr. Harvey W. Wiley, Chief of Bureau of Chemistry, chairman; Dr. Frederick L. Dunlap, Associate Chemist Bureau of Chemistry, and George P. McCabe, Solicitor of the Department of Agriculture. The board will consider all questions arising in the enforcement of the Food and Drugs Act of June 30, 1906, upon which the decision of the Secretary of Agriculture is necessary, and will report its findings to the Secretary for his consideration and decision. All correspondence involving interpretations of law and questions arising under the law, not heretofore passed upon by the Secretary of Agriculture, shall be considered by the board. The board is directed to hold frequent meetings at stated times, in order that findings may be reported promptly.

"In addition to the above duties the Board of Food and Drug Inspection shall conduct all hearings, based upon alleged violations of the Food and Drugs Act of June 30, 1906, as provided by regulation five of the rules and regulations for the enforcement of the Food and Drugs Act, approved October 17, 1906."

Secretary Wilson said concerning the new organization:—"It was absolutely necessary, if I was to give any attention to other duties of this department, that my work in this bureau, which has to do with the enforcement of the Pure Food law, should be reduced. For two or three years I have wanted to go out and make a study of some of the large forest problems. I have the enforcement of the Meat Inspection law under my charge; the general conduct of a big and rapidly expanding department, and this Pure Food law has been demanding too much of my time. So I have been compelled to create this board, which will give hearings, decide as to the scientific facts and as to the law, and present its conclusions to me. It is a matter merely of origin in this department, it affects only the pure food work and will not interfere with other work of the bureau. I asked the President to find me a high-class man of known scientific attainments and standing, and I am satisfied that he has picked the right one. There is every reason to believe the organization will expedite the execution of the Pure Food law."

Oil Lands in Canada!

The developments in the Canadian oil fields has been made the subject of a special report by the Canadian Geological Survey which reads in part as follows:—

In Nova Scotia oil has long been known to occur, the most promising locality being in the Lake Ainslee district, Cape Breton Island. In 1905 and 1906 boring operations for oil have been going on actively. The syndicate operating there intend to go on with the work in 1907.

Another locality in Nova Scotia where a hole in search of oil was recently put down is at Cheverie, where a depth o over 1,000 feet has been reached. Operations will also be continued there.

New Brunswick has a small producing field at Memramcook, where several wells are regularly pumped, although the output is small. There exists, however, in New Brunswick, a possible source of petroleum, which perhaps has not received all the attention that it deserves. In Albert County there exist large deposits of bituminous or oil-bearing shales, from which oil could be extracted by distillation, and these deposits, under prudent and careful management, may yet become a feature in the Canadian oil industry. The possibilities of these oil-bearing shales have at different times been mentioned by members of the Canadian Geological Survey. A similar industry is being carried on very successfully in Scotland.

In Gaspe, Province Quebec, operations in search of oil have been carried on for the last ten years on a very large scale, but the results so far have been disappointing. More than fifty holes have been bored, one of which reached a depth of 3,700 feet.

Ontario is responsible for practically the total Canadian oil production. The following fields are located in the southwestern peninsula between Lakes Huron and Erie. The older oil pools, or oil-producing areas, have been described at different times, and it will be sufficient to mention here that the Petrolia district has been yielding since 1862, the Oil Spring pool is about contemporaneous, and since then other oil areas have at various times been "brought in," such as Bothwell, Moore, Leamington, Dutton, Thamesville, Wheatly, Tilbury and others, most of which are included in the counties of Lambton, Kent and Essex.

The feature of the oil industry in Western Ontario has been the discovery of the new producing areas of East Tilbury township, where a pool, which promises well, was struck in the vicinity of Bothwell.

On Manitoulin Island boring operations were actively carried on during 1906 by five different companies. This field, however, has not yet contributed to the Canadian production of oil.

In Western Canada, throughout all the provinces, a great deal of energy is being displayed in prospecting for petroleum. In Manitoba boreholes are being put down at two places at least where surface indications had been reported, or where signs of the presence of oil were said to have been found on sinking wells for water. One of these places is at Manitou in Southern Manitoba, and the other is at Neepawa, on the Minnedosa branch of the Canadian Pacific Railway.

Deep-boring operations are also being carried on in Saskatchewan and in Alberta. The latter province is more especially prominent in this direction. There are at present some twelve or fifteen deep-drilling rigs prospecting various areas between the international boundary on the south and lower part of Athabaska River in the north.

In Southwestern Alberta oil has been struck in two wells at depths slightly exceeding 1,000 feet. It is reported that these wells could be pumped and made to yield, but the lack of means of transportation is a drawback at present. However, prospecting is going on very actively, and, should the results obtained in this section, which lies southwest of Pincher Creek, justify it, a pipe line or a railway spur, both of which are very feasible, would be constructed. At Calgary and at Medicine Hat drilling rigs are in operation and at the latter place provision has been made to reach a depth of 3,000 feet. In the northern part of Alberta the search for petroleum is being carried on in the vicinity of Fort McMurray, on the Athabaska River, some 300 miles north of Edmonton. The extensive outcrops of tar sands in this region have frequently been referred to by various members of the Geological Survey. These certainly indicate the presence of oil-bearing strata, and there is little doubt that where the underground structure and other conditions are favorable large accumulations of oil have gathered, and this far north country may become quite a factor in the production of petroleum in Canada.

In British Columbia two companies were working in Southeast Kootenay in 1906. The depths reached in this district are not yet sufficient to be conclusive.

Some work was also being carried on in the Cariboo district, from where very promising indications have been reported.

PETROLEUM NOTES.

On Point Pleasant, W. Va., the Dry Run Oil Co. has completed its No. 4 on the Weetzel-Marlow farm, and has a show for a 15-bbl. pumper.

In Hancock county, W. Va., E. W. Marland & Co. drilled in No. 6 on the C. E. Brenneman farm and have a show for a 30-bbl. producer.

In the Marksburg field, O., George Hess & Co. completed No. 27 on the George Hess farm and have a 5-bbl. pumper in the Buell run sand.

On Dunkard creek, Pa., Perry township the Rural Oil and Gas Co. has completed a test on the J. B. Donnelly farm, and has a 5-bbl. pumper.

On Dunkard creek, Church district, Wetzel county, O., the Carnegie Natural Gas Co.'s No. 2 on the Hagan Six farm is producing 140 bbls. a day.

In the Brush Creek field, Allegheny county, O., the Amber Oil Co. drilled its test on the Jessie Neeley farm and has a show for a 25-bbl. producer.

In Hancock county, W. Va., E. A. Freshwater & Sons completed No. 6 on the G. G. Brenneman farm and have a producer good for 50 bbls. a day.

In the Marksburg field, in Washington county, O., Muellen & Stephens completed a test on the Stephens farm and have a 10-bbl. pumper in the Berea grit.

On Long run, Grant district, Ritchie county, W. Va., the States Oil Co. completed No. 4 on the John Hill farm and has a 20-bbl. producer from the salt sand.

In the Woodsfield district, Monroe county, O., Luther Miller & Co. completed their No. 3 on the J. J. Nally farm and have a 5-bbl. pumper in the Cow run sand.

On Addis run, Grant district, Ritchie county, W. Va., the Mountain State Gas Co.'s test on the Jacob Hatfield farm is good for a 5-bbl. pumper in the Big Injun sand.

On Green creek, Walton district, Roane county, the Bull Pen Oil Co. completed its test on the W. W. Taylor farm and has a 20 or 25-bbl. producer in the Big Injun.

On Long run, Grant district, Ritchie county, W. Va., the Bando Oil Co. completed its No. 6 on the Hiram Cain farm and has a show for a 30-bbl. producer in the salt sand.

In Walton district, Roane county, W. Va., the South Penn Oil Co. has completed its test on the James Harless farm, and has a show for a 10-bbl. pumper in the Berea grit.

In the Plum run district, Harrison county, O., the Ohio Consolidated Oil Co. has completed its No. 5 on the John McCauley farm and has a show for a light pumper in the Berea grit.

In the Congo pool in Hancock county, W. Va., E. W. Marland & Co. have drilled their No. 7 on the G. G. Brenneman farm and the showing is for a 20-bbl. producer in the Berea grit.

On Willey Fork, of Richwood run, Grant district, Wetzel county, W. Va., the South Penn Oil Co. has shot its No. 4 on the Mary Willey farm and increased its production to 35 bbls. a day.

On Fallen Timber run, Grant district, Wetzel county, W. Va., the Parker & Edwards Oil Co. completed No. 7 on the Z. T. Francis farm and will have a 10-bbl. pumper in the Big Injun sand.

On the South Fork of Dunkard creek, Battelle district, Monongalia county, W. Va., the South Penn Oil Co. completed its test on the Frank M. Renner farm and has a 50-bbl. producer in the fourth sand.

On Miracle run, Battelle district, Monongalia county, W. Va., the South Penn Oil Co. has drilled its test on the Martha E. Tennant farm and has a show for a producer good for about 40 bbls. a day in the fourth sand.

On McKim creek, Union district, Pleasants county, W. Va., the Monongahela Oil Co. drilled No. 16 on the Thomas Wagner farm and got a second pay, increasing its production to 80 bbls. a day in the Cow run sand.

In Butler county, Pa., the Southern Oil Co| has drilled in its test on the Richard Burke farm and has a show for a fair producer. Oil was developed in the third and fourth sands, and after a shot in both formations it is expected to make about a 30-bbl. producer.

PAINT MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 31.

Saturday Noon, April 27, 1907.

Developments in the market for the various lead products were not of interesting character but prices on the whole are being firmly maintained. Weather conditions which have existed in most parts of the country during this month were not of a nature favorable to consumption. Threatened strikes by painters at various points had no special bearing on the trade. The volume of mail orders booked during April, thus far, has been fairly good and up to the expectations of most manufacturers. There has been a fair demand for dry colors during the past week, the call being chiefly for greens and blues. Paris green has been moving freely and new orders booked reached a fair volume. Prices have undergone no quotable change. Distributors of mixed paints, continued to call for goods in anticipation of a heavy consuming demand as soon as the weather permits of outdoor work. Manufacturers of mineral brown metallic paint have advanced the price one dollar per ton, due, it is claimed, to the enhanced cost of raw material and advancing wages. The demand for barytes and whiting continues to be greater than the supply.

White Lead, Zincs, Etc.

WHITE LEAD.—There was a further increase in the volume of mail orders, but new business in large lots was light. Corroders report a steady call for supplies of lead in oil on outstanding contracts and should weather conditions improve more activity is promised. A fair jobbing business was done at full prices which rested on a firm basis ranging from 7¼c. and upward, according to quantity and terms of sale. In the absence of selling pressure of dry lead and steady deliveries on contracts, prices remained firm on the basis of 6⅝c. and upward, according to make and terms of sale. Fair quantities were booked for May delivery at current prices. Imported makes of lead in oil met with a seasonable demand and sales on the basis of 9⅝c. and upward, according to make and terms of sale.

RED LEAD.—There was a fairly good demand for parcels for prompt delivery and owing to no excess of available supplies prices were firmly held with sales of domestic on the basis of 7½c. and upward, according to make and terms of sale. English was steady with moderate sales on the basis of 8¼c. and upward. Glassmakers' grades were quiet and quoted nominal owing to the shut down of hand window glass factories on April 20. Latter will not go into blast until the fall. For German goods inquiries were fair with sales covering May deliveries on the basis of 8¼c. and upward, according to grade, quantity and point of shipment.

LITHARGE.—There was a slight decrease in the withdrawals on outstanding contracts but to large consumers deliveries continued good. Prices were firmly maintained on the basis of 7¼c. and upward, according to make, point of delivery and seller.

ORANGE MINERAL.—Parcels of French for prompt delivery were fairly well patronized and sales covered jobbing lots on the basis of 11½c. for supplies in casks; 12c. for supplies in kegs of special brands, and 10¾c. and upward for other makes, according to quantity, package and terms of sale. German was in light demand at former prices. Jobbing lots of domestic were more active and as stocks are light prices were firm on the basis of 8¾c. and upward, according to terms of sale.

PIG LEAD.—Spot parcels opened easier with prices lowered by holders to 6@6.05c., followed by general dullness, closing unchanged. The St. Louis market for soft Missouri opened dull with prices barely steady on spot lots at 5.92½@5.95c. and continued barely steady, closing unchanged. The London market for soft Spanish opened steady at £20 and closed lower at £19 15s.

ZINCS.—There continued a good demand from both exporters and the home trade, and sales covered large quantities for prompt delivery and shipment over May. Prices rested on a firm basis for the various New Jersey makes at 5⅝@5½c., according to grade, quantity and terms of sale. Imported zincs met with steady inquiries and sales at current quotations.

Dry Colors.

BLACKS.

There has been a heavy demand during the past week for bone and American drop black. Manufacturers report that the volume of business transacted in the former article during the month of April was at least 20 per cent. in excess of that for the corresponding time of last year. Lamp and carbon blacks found a satisfactory consuming outlet. We quote bone black at 2@4c.; carbon, 6½@10c.; high-grade, 18@28c.; American drop, 3½@8c.; English, 5@15c.; ivory, 16@20c.; commercial lamp, 4@6c., all according to quality, quantity and terms of sale.

BLUES.

The call continued to be for Chinese, Prussian, Milori, soluble and ultramarine blue, while other descriptions attracted little or no attention. Prices rule steady at 4@6c. for celestial; 31@33c. for Chinese; 18@25c. for Italian; 30c. for Milori; 29@32c. for Prussian; 31@33c. for soluble, and 4½@15c. for ultramarine.

BROWNS.

A continued steady demand has been in progress during the week for siennas and umbers. Manufacturers' quotations for Italian sienna, burnt and powdered, are 3@6c.; American burnt and powdered, 1½@2c.; Turkey umber, burnt and powdered, 2@3¼c.; American, burnt and raw, 1½@2c.; vandyke brown, 2¼@3½c., all according to quality, quantity and terms of sale.

GREENS.

Local manufacturers of paris green are busy filling standing orders and report having booked a good volume of new business during the past week. The price per pound in bulk is 26c. Chrome green has been in good request and prices rule steady on the basis of 17@25c., according to quality, quantity and seller.

REDS.

Manufacturers state that the demand for English and American venetian red is greater than the production, with a steadily growing demand for American vermilion. A seasonable volume of business has been done in other descriptions, and prices rule steady at $3.10@3.25 for No. 40 carmine; 3@3¼c. for standard American Indian red; 4@10c. for English Turkey red; $1.15@1.75 per 100 lbs. for English venetian red; 50c.@$1.25 for American; 65@70c. for English vermilion; 65c. for American quicksilver in bulk; 7@25c. for American vermilion, according to quality, quantity and terms of sale.

YELLOWS.

Chrome yellow is finding a satisfactory consuming outlet and prices rule steady at 12@14c., as to quantity and seller. French ocher continues in seasonable demand and importers' quotations remain on the basis of 1¼@2c., according to quality and quantity.

Mixed Paints and Colors in Oil.

The market presents nothing that is particularly new. Distributors of mixed paints throughout the country continue to call for goods, so as to be in position to supply the heavy consuming demand which will undoubtedly be felt as soon as the weather permits of outdoor work.

Metallic Paints.

No improvement was noted in the demand for metallic paints during the week. Notice of an advance of $1 per ton in the price of mineral brown has been received by the trade. We quote red at $14@18 per ton; brown, $16.50@22.

Miscellaneous.

BARYTES.—Market conditions are unaltered. Demand continues to be greater than the supply, notwithstanding the fact that the receipts of crude material are greater than for several months past. We quote prime white domestic at $17@19 per ton; foreign, $18.50@20.50; floated, $1@2 per ton additional.

CHINA CLAY.—There has been a scarcity of low and medium grades of imported china clay, with a good stock of the better qualities. Demand has been fair, and prices ruled steady at $11@17.50 per ton for foreign and $8@9 for domestic goods, according to quality.

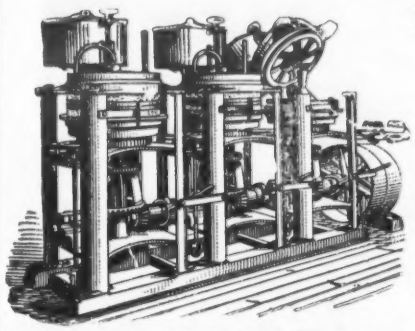
FULLER'S EARTH.—There is a continued absence of new features or quotable change in values. Demand has been slow and spot stocks are large. We quote 80@85c. per 100 lbs. for powdered, according to quality.

PUTTY.—The market is on an unchanged but steady basis, with gradual improvement noted in the demand. Prices for commercial are $1.20 per 100 lbs. on deliveries of not less than 10 tubs; $1.25 on deliveries of not less than 5 tubs; linseed oil, $1.75@2, all f. o. b. New York.

TALC.—Only a moderate volume of business has been transacted during the past week. Spot supplies of all grades are ample to meet consumers' requirements, and prices rule steady at $15@25 per ton for American; $18@25 for French, and $25@40 for Italian, according to quality.

NEW DESIGNS

MILLS and MIXERS



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MINERS AND MANUFACTURERS
EAST ST. LOUIS, ILL.

Shellac or Rosin ?

Adulterated Shellac not only means a lot of trouble for the user but also trouble for the honest dealer who attempts to market his goods on a quality basis. Lower prices than he is able to make are being constantly quoted and as the consumer does not often know the difference till the goods are used, the dealer in high grade shellacs is at a disadvantage. Tests for adulterants may be easily made with our Rosin Test Solution which demonstrates immediately the presence of foreign gums or other impurities.

We use the best gums for our shellac varnishes and are headquarters, on bleached shellac, both commercial and bone dry, sealing wax and wood cements.

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Manufacturers of
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Factory 272 to 280 Passaic Street, - - NEWARK, N. J.

Manufacturers, Large Dealers the World over, read the Oil, Paint & Drug Reporter.

SELLING AGENT FOR CHICAGO,
EDWARD KEIR,
39 River Street.

J. Lee Smith & Co.

59 FRANKFORT ST., and 19 21 & 23 JACOB ST., NEW YORK.

Agents for
Sisson Bros. & Co., Ltd.
Hull, England.
Manufacturers of Crown Paris White, Patent Dryer, Ochres, Drop Black and Colors.

Agents for
The Hull & Liverpool Red Oxide Co., Ltd.
St. Helens and Hull, England,
Manufacturers of Double and Triple Crown Venetian Oxide, "AAAA" and other Venetian Reds, Indian Reds, Oxides of Iron, Crocus, etc.

PAINTS FOR GRINDERS' USE

IMPORTERS OF

French and other Ochres, V. M. French Zinc, English B. B. White Lead, China Clay, Vandyke Brown, Talc, Etc.
Grinders of Turkey Umber, Italian Siennas, Golden Ochres, Bone Black, Etc.

Honest Paint Labels

The food law has compelled manufacturers to play fair with the buying public.

Two or three states now have similar laws relative to paint material. Other states are contemplating like action.

Dealers, irrespective of the law, should require the paint materials they sell, whatever their merit, to be honestly labeled.

National Lead Co's. brands of white lead are honestly made and honestly branded. No dealer who sells them has any anxiety as to their character or the results they bring.

Awakening Interest in GOOD Paint

The knowledge of the superior merits of pure lead and linseed oil for painting is spreading to householders who have never before thought much about the difference in paints.

The painters are aiding us enthusiastically in extending this knowledge. They know that it helps them.

Are you handling one of our brands? If not, you are not getting the benefit of this awakening of public interest in good paint, which might just as well be yours. Write our nearest office for terms.

National Lead Company,

Largest Manufacturers of White Lead in the World

New York Boston Buffalo Cleveland Cincinnati Chicago St. Louis
Philadelphia (John T. Lewis & Bros. Co.) Pittsburg (National Lead and Oil Co.)

CARBON BLACK

—MADE BY—

GODFREY L. CABOT.

82 Water Street, BOSTON, MASS, U. S. A.

N. B.—Carbon Black is also known as Hydrocarbon Black, American Gas Black, Satin Gloss Black, Jet Black, Silicate of Carbon, etc.

GRADES.—Eclipse, Elf [S], Elf [G], B. B., Banner, B. B. B., etc.

SHIPPING POINTS.—Saxonburg Station, Ridgway, etc., Pa.; Owensport, Bristol, Wilsonburg, etc., W. Va.

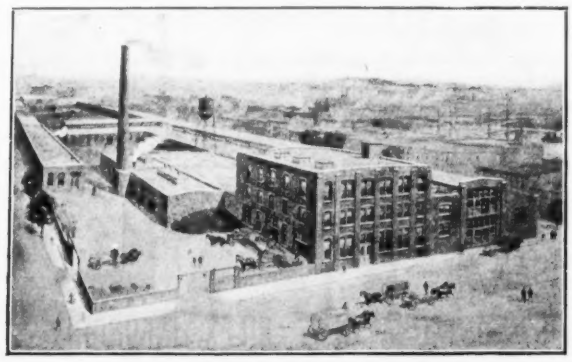
STOCKS carried in New York, Chicago, St. Louis, London, Paris, Hamburg, St. Petersburg, etc.

WRITE FOR SAMPLES AND PRICES.

CHICAGO, 112 and 114 Franklin St. ESTABLISHED 1851 Factory, BROOKLYN, N. Y

H. KOHNSTAMM & CO.

87 and 89 Park Place, New York



DRY COLOR MAKERS

NON-FADING REDS

BRILLIANT, UNIFORM, STRONG.

MORRIS HERRMANN & CO.

68 WILLIAM STREET, NEW YORK CITY.

SAMPLES AND PRICES ON APPLICATION.

COLOR CARDS AND PAINT SAMPLES

KINSEY & JOHNSTON CINCINNATI, O.

WILLIAM KNAPPMANN & CO.

Manufacturers of ALL GRADES of

WHITING

PARIS WHITE
PREPARED CHALK, etc.

Factory: Grand St. & Metropolitan Ave, Brooklyn. 'Phone, 1900 Williamsburg.

E. P. EARLE, 31 Nassau St., New York Sales Agent. 'Phone, 8768 Cortlandt.

CAPACITY
150
TONS DAILY

NOTICE TO PAINT GRINDERS, KALSOMINE MFTRS., ETC.

TOLANITE

Pulverized or Lump,

THE PHILADELPHIA CLAY CO.

M. W. PHILLIPS, President, 1201 Chestnut St., Philadelphia, Penn.

R. J. WADDELL & CO. IMPORTERS

52 BEEKMAN ST., NEW YORK.

SOLE AGENTS
IN THE UNITED STATES FOR

Composition Pumice Stones

CARBON GAS BLACK
LAMP BLACK
IVORY BLACK
BONE BLACK
DROP BLACK
FRANKFORT BLACK
VINE BLACK
CHARCOAL
MINERAL BLACK
PHOTOGRAVURE and PLATE BLACKS
Etc., Etc.

WE STAND ON THE SAFE SIDE

by making our Blacks twice better than they need be to sell, but not a whit better than they need be to use.

BINNEY & SMITH CO.

81-83 Fulton Street, NEW YORK

JOHN W. MASURY & SON,

MANUFACTURERS

PAINTS and VARNISHES

NEW YORK and CHICAGO.

C. K. WILLIAMS & CO.

EASTON, PA.

WE ARE MAKING A SPECIALTY OF A PARTICULAR HIGH GRADE

PERSIAN OXIDE, ITALIAN SIENNA and a very BRIGHT STRONG **GRINDING OCHRE**

as well as various other **DRY COLORS.** Samples and Prices furnished upon application.

VARNISH

MANUFACTURERS FOR THE TRADE

Samuel H. French & Co.

York Ave., Fourth and Callowhill Streets,

Established 1844. PHILADELPHIA

SEAVER & CO., MANUFACTURERS OF

FINE IVORY AND DROP BLACK.

For The Trade and Grinders' Use

LAMP AND CARBON BLACKS.

120 MILK STREET, - - BOSTON, MASS.

E. S. BELKNAP—McSHERRY & MORAN CO.

Successors to E. S. BELKNAP MFG. CO.

Office and Factory, 5-7 Ainslie St., Brooklyn, N. Y.

The Oldest PUTTY ESTABLISHMENT in the United States

LAMP BLACKS

IN BULK AND PACKAGES

OF UNEQUALED QUALITY.

We make Lamp Black of every grade and quality and will cheerfully submit prices and samples. No connection with any combination.

BIHN & WOLFF CO.

Established 1844 BRIDESBURG, PHILADELPHIA, PA

TERRA ALBA.—Dealers report a fair demand, with good stocks of all grades. Prices rule steady at 75@80c. per 100 lbs. for No. 1 American; 60@65c. for No. 2; 80c.@$1 for English, and 90c. @$1 for French, according to quality.

WHITING.—Manufacturers are overrun with orders, and plants are being operated to their full capacity. Prices have undergone no quotable change.

Glues.

Manufacturers report that the demand for high-grade white glues is greater than the supply, with a good demand, and a normal supply of medium grades. Low grade hide and bone glues continue scarce. Prices for all descriptions are unchanged, but firmly held.

Varnish Gums.

The activity in kauri in the primary market is the most extraordinary known in the history of the business, and prices have advanced from 2s. to 6s. during the past week over the already high prices prevailing; and it is positively stated that the market will advance to still higher figures. Even for the cheapest, lowest grade stuff outside prices are being bid for supplies. The prices quoted on fancy selected grades of kauri are nominal, and because of the great scarcity it is our opinion that actual transactions

FOREIGN AND DOMESTIC
FINE DRY COLORS
Every variety for every trade.
Correspondence solicited
Siemon & Elting, 194 Front St. NEW YORK

GELATINE
GLUE
ALL GRADES
Adapted for all purposes.
Write for Samples and Prices, stating for class of work required.
C. B. HEWITT & BROS.
MANUFACTURERS,
48 Beekman St., New York
Our products are guaranteed STANDARD QUALITY.

New York Rosin Oil & Varnish Co.
82 Beaver Street, New York
Manufacturers { ROSIN OIL / KIDNEY OIL / PRINTERS' INK VARNISHES

TALC
SOAPSTONE
DELAND MINING & MILLING CO.
Miners and Millers
811 EQUITABLE BLDG.
BALTIMORE, MD.

Wood Alcohol
95%-97%

EAGLE SPIRIT
PURE METHYL ALCOHOL, 97%

METHYL ALCOHOL is the strongest in solvent powers and is the most volatile of any of the alcohols. It is a stable chemical unit, not a mixture. Its nature is familiar to the trade. Its use involves no change of formulas, no keeping of records, no reports and disclosure of private statistics. It is offered at low prices and immediate deliveries of all orders are guaranteed.

PRICES QUOTED UPON APPLICATION

AMERICAN METHYL CO.
88 Broad St., Boston

NEW YORK 82 CORTLANDT ST. | PHILADELPHIA 218 RACE ST. | CHICAGO 53 RIVER ST.

TINNOL—A PASTE THAT STICKS
No Rust Spots on Tin. No Peeling Off. No Discoloring of Labels.
WRITE FOR SAMPLE AND PRICES TO
The Arabol Manufacturing Co., 100 William Street, NEW YORK
Headquarters for SIZING, PASTES, GUMS and MUCILAGES for all purposes

TALC
FOREIGN AND DOMESTIC
Silex, Barytes, Paris White, Whiting, China Clay, Asbestine, Fullers Earth, Clays, Colors, Minerals
W. H. WHITTAKER, 245 Front Street, New York

PURVEYORS TO THE PAINT TRADE
VENETIAN REDS, METALLIC and SPANISH BROWNS, MORTAR COLORS, FILLERS, JAPANS, ROSIN VARNISHES, PAINT OILS, BLACK ASPHALTUMS, LINSEED BLEND
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HARRISON BROS. & CO., INC.
PAINT, COLORS, VARNISH, WHITE LEAD, CHEMICALS
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NEW ORLEANS HOUSTON ST. LOUIS KANSAS CITY

ITALIAN FRENCH AMERICAN TALC
POWDERED CHINA CLAY, SILEX, INFUSORIAL EARTH, MANGANESE, ENGLISH ROTTENSTONE, ROUGE.
CHAS. B. CHRYSTAL.
116 John Street, New York

OIL BLACKS
POWDER, For Varnish, Stains and Toning Coach Blacks
PASTE, For Deepening Asphaltum
LUMPS, For Oil and Benzole Stains
TRADE MARK.
G. SIEGLE CO. 79 Duane St. NEW YORK

National Whiting Co.
Independent Manufacturers OF THE FINEST GRADE OF WHITING
Write for Quotations and Samples before Ordering Elsewhere.
Perfect Goods. Prompt Delivery. 84 La Salle St., CHICAGO, Ill.

Chas. C. Morrison MANUFACTURER OF WOOD SAMPLES FOR MIXED PAINTS
Est. 1892 Telephone Har. 1987
FACTORY: 91-3-5-7 Ewing St. CHICAGO, ILL.
OFFICE: 363 and 365 South Clinton Street.
Coach Cards, House Cards, Carriage Cards, Mineral Cards, Enamel Cards, Buggy Spokes, Graphite Cards, Stain Cards
Wooden signs of all descriptions. Advertising matter of all kinds for the Paint Trade. Prices and samples furnished on application.

TALC and Talc Crayons
Dried, Ground and Bolted, China Clay
Silex, Terra Alba, Paris White and Minerals
SAMUEL NEVINS CO., 109 S. 2nd St. Philadelphia, Pa.

North, East, West, South goes the Oil, Paint & Drug Reporter

MANGANESE
Asphaltum, Varnish Gums, &c.
JOHN S. LAMSON & BRO., 77 Maiden Lane, New York.

Wherever and Whenever

You find a good house paint—a paint that has made a reputation with discriminating consumers beauty for durability and economy, you will find a paint that is based on

Oxide of Zinc

Wherever and whenever you find a cheap paint that gives better service than its formula would lead you to expect, you will find that the zinc in the formula has "saved the paint."

The New Jersey Zinc Co.

— FREE —

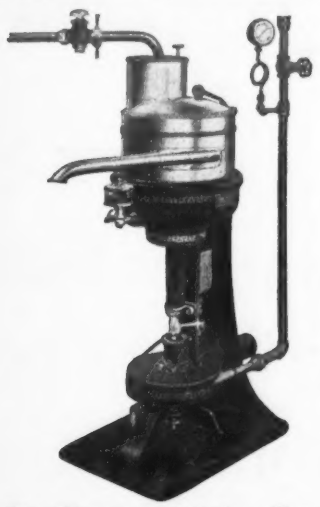
Our Practical Pamphlets:

"The Paint Question."
"Paints in Architecture."
"Specifications for Architects."
"French Government Decrees."

71 Broadway
NEW YORK

We do not grind zinc in oil. Lists of manufacturers of Oxide of Zinc Paints will be furnished on request

DE LAVAL VARNISH SEPARATOR



A Big Money and Labor Saver in Removing all Dirt from Demar, Varnishes, Japans, etc.

The De Laval Separator requires no filter cloths or filter papers and does away with the subsequent washing of same. After a separation has been made the machine contains only about two gallons of varnish and, therefore, requires no ***extra*** amount of varnish as in emptying a filter press, to say nothing of the great saving in labor over that attached to the handling of the press. The De Laval can be cleaned in from twenty to thirty minutes, and while it occupies no more space than a barrel on end, it has a capacity equal to a filter press. The operation of the machine is very simple and its construction so substantial that it will last a lifetime with ordinary care. The leading varnish concerns of this country are rapidly adopting the De Laval machine. Its efficiency for the purposes mentioned is unequalled. Write today for full particulars and any desired information.

The De Laval Separator Co.
74 CORTLANDT ST., NEW YORK

could not be done within five cents a pound advance over these quotations. The market for Manilas is exceedingly firm at the advanced prices since last report, and notwithstanding a disposition to hold off making purchases, there appears to be no break in sight in the firm tone of the market. Damars remain in statu quo.

Window Glass.

Quiet conditions continued to prevail throughout the market the past week. While local jobbers' prices are on the basis of 90 and 10 per cent. off the list for single and double strength glass, there is a good deal of cutting by holders of machine made glass, due to the low prices recently quoted by the American Window Glass Co. With very few exceptions, the factories identified with the National Brokerage Co. have closed down for the summer.

Alcohol Denaturant for Pastes and Varnishes.

In accordance with section 80 of regulations No. 30, the following formula has been authorized as a special denaturant for use in the manufacture of pastes and varnishes from soluble cotton: To 100 gallons of alcohol shall be added two gallons approved wood alcohol and two gallons benzol. The wood alcohol shall be held subject to the same specifications as are imposed upon the methyl alcohol used in completely denatured alcohol, which are set forth in circular No. 680. The benzol shall be subject to the following specifications:—

Solubility in Water.—When 10 c.c. of benzol are shaken with an equal volume of water in a glass-stopped cylinder divided into tenths of a cubic centimeter, and allowed to stand five minutes to separate, the upper layer of liquid must measure not less than 9.5 c.c.

Boiling Point.—When 100 c.c. of benzol are subjected to distillation in the same manner as prescribed for the determination of the boiling point of wood alcohol in Circular No. 680, not more than 1 c.c. should go over at 77 degrees C., and not less than 90 c.c. at 100 degrees C.

Paints in Norway.

SOME AMERICAN GOODS SOLD ON THE MARKET.

A report from Consul-General Henry Bordewich states that although there are several paint works in Norway, paint is imported to some extent, the following being the trade particulars:—

"American paint has been sold in this market with varied success. According to the official statistics, Norway imported during the year 1905, 156,220 kilos (kilo 2½ pounds) of ground paint in oil, valued at $14,258, of which 3,420 kilos appear to have come from the United States. Owing to the peculiar way in which the Norwegian statistics are compiled, the import of this article from America may have been somewhat larger, because only the shipments of goods coming from America by direct steamer to Norwegian ports are marked down as coming from America. American goods arriving via England and Germany are set down as imports from such countries. The import duty on paints in oil is 2.1 cents per kilo, and a trifle less on dry paints. The larger portion of the imported paint comes from Great Britain, but some also comes from Germany.

"I have paid special attention to paints ground in oil in this report, for the reason that American firms exporting paints to Norway generally offer that article only. Unground, dry paint stuffs, such as white lead, zinc, ocher, etc., are more important articles of import than prepared paints. Of these goods there are imported some 8,000,000 kilos per annum."

CASEIN
Shlaclac-Glue
POWDERED OR GRANULATED
COLORLESS TRANSPARENT AND WATERPROOF
ANY AND ALL YOU WANT
ADVANTAGES., ECONOMY AND BEST RESULTS. SAMPLES FOR THE ASKING.
UNION CASEIN COMPANY
PHILADELPHIA, PA.

The John Lazenby Color Card Co.
Manufacturers of
Color Cards for Mixed Paints
J. W. STOCKER & SON, Props.,
CHICAGO, U. S. A.
Our Motto, Quality and Punctuality.

KENDALL & FLICK
MANGANESE
WASHINGTON, D.C.

KENDALL & FLICK
MANGANESE
WASHINGTON, D.C

Time Proves

the sterling worth and real merit of The L. MARTIN CO'S. famous brands of ***Germantown Lamp Blacks,*** the quality of which has been kept constantly to a perfect standard throughout a period of fifty-seven years. Like the sturdy oak, which has weathered many a winter's blast, they have vanquished all challengers, and stand today as a lasting example of supremacy.

For the mutual protection of our customers and ourselves against spurious imitations we have established a trade mark, printed herewith, and which must appear on every package of the genuine

Old Standard Germantown
Eagle Germantown, or
Globe Germantown

Trade Mark Look for it. Established 1849

THE L. MARTIN COMPANY,
81-83 Fulton St., New York, N. Y.

COLORS UHLICH
Pure Red Body **TONERS** and **Coach BLACKS**
PAUL UHLICH & CO.
81-83 Fulton St., New York
Manufacturers and Importers of
FINE COLORS

HANNA & ANDRUS MFG. CO.,
Dry Colors
ENGLISH VENETIAN REDS
White Mineral Primer, F. S. A. Silica and Star White Silica.
We also manufacture a full line of **Ochres. Umbers Siennas, Chrome Ochres, Oxides, Indian Reds, Tuscan reds, Mortar Reds, Blacks, etc.**
OUR GOODS ARE FINEST AND BEST ON THE MARKET
Cor. Weed St. and Hawthorne Ave.,
Quotations on application
CHICAGO, ILL.

The Bronze Powder Works Co.
FORMERLY CARL SCHLENK
Factories: ELIZABETH, N.J., and ROTH, near Nuremberg, GERMANY
Leading Manufacturers of and Headquarters for
BRONZE POWDERS, Gold and Aluminum Paints, Bronzing Liquids, etc.
New York Office, : : 93 William Street

Prince's Metallic Paint Company
ALLENTOWN, PA.
Manufacturers of
GENUINE PRINCE'S METALLIC PAINT
For Grinders' Use.
Note the Label — Note the Label

North, East, West, South, goes the Oil, Paint and Drug Reporter.

THE PITTSBURGH PLATE GLASS COMPANY, MANUFACTURERS AND JOBBERS OF
Plain and Bevelled Mirrors, Polished Plate, Bent Glass, Plate Glass for Desks and Table Tops

CARRARA GLASS a new product like polished white marble. Our facilities for supplying furniture manufacturers everything in Plate Glass, rough or polished, and of any size, will be understood when we state that we have eight glass factories, extending from Pennsylvania to Missouri, and fifteen mirror plants located as follows:

NEW YORK, BOSTON, PHILADELPHIA, BUFFALO, CHICAGO, CINCINNATI, ST. LOUIS, MINNEAPOLIS, ATLANTA, KOKOMO, IND, DAVENPORT, CRYSTAL CITY, MO., FORD CITY, PA., KANSAS CITY, MO., HIGH POINT, N. C.

LARGEST JOBBERS OF WINDOW GLASS IN THE WORLD

SOLE DISTRIBUTERS OF PATTON'S SUN PROOF PAINTS. WIRE GLASS BEST PROTECTION AGAINST FIRE.

It needs no argument to show what advantages may be derived from dealing directly with us
Also our twenty three jobbing houses carry heavy stocks in all lines of Glass, Paints, Varnishes and Brushes, and are located in the cities named below:

NEW YORK, Hudson and Vandam Sts.; BOSTON, 41-49 Sudbury St., 1-9 Bowker St.; CHICAGO, 442-452 Wabash Ave.; CINCINNATI, Broadway and Court St.; ST. LOUIS, Cor. 7th and Market Sts.; MINNEAPOLIS, 500-516 S. Third St.; DETROIT, 53-59 Larned St., E.; GRAND RAPIDS, MICH., 39-41 N. Division St.; PITTSBURGH, 101-103 Wood St.; MILWAUKEE, WIS., 492-494 Market St.; ROCHESTER, N. Y., Wilder Bldg., Main and Exchange Sts.; BALTIMORE, 221-223 W. Pratt St.; BUFFALO, N. Y., 372-74-76-78 Pearl St.; BROOKLYN, 635-637 Fulton St.; PHILADELPHIA, Pitcairn Bldg., Arch and 11th Sts.; DAVENPORT, 410-416 Scott St.; CLEVELAND, 1430-1434 W. Third St.; OMAHA, 1608-10-12 Harvey St.; ST. PAUL 849-851 Minnesota St.; ATLANTA, GA., 30-32-34 S. Pryor St.; SAVANNAH, GA., 745-749 Wheaton St.; KANSAS CITY, Fifth and Wyandotte Sts.; BIRMINGHAM, ALA., 2d Ave. and 29th St.

WOOLNER'S
Liberty Brand
DENATURED ALCOHOL
FOR CHAFING DISH, LIGHT, HEATING, COOKING AND ALL INDUSTRIAL PURPOSES
WOOLNER & COMPANY
DISTILLERS. PEORIA, ILL. U.S.A.

We also manufacture the specially denatured alcohol for varnish and soap manufacturers.

We furnish retail and wholesale record books free of charge to the trade handling denatured alcohol.

L. MARTIN & WILCKES CO.
LAMP BLACK

LARGEST · MAKERS OF FINE · LAMP · BLACKS IN · THE · WORLD
135 WILLIAM ST., N. Y. CITY.

CONTINENTAL
COLOR & CHEMICAL CO.

Successors to

KUTTROFF, PICKHARDT & CO.
FARBENFABRIKEN OF ELBERFELD CO.

Sole Importers of the products manufactured by

BADISCHE ANILIN & SODA FABRIK,
Ludwigshafen a/Rhein, Germany,

FARBENFABRIKEN, VORMALS FRIEDR. BAYER & CO.
Elberfeld, Germany,

Sole Agents for

HUDSON RIVER ANILIN COLOR WORKS,
Albany, New York.

128 DUANE STREET - - NEW YORK

BRANCH OFFICES:

Boston - - - - 32 India Street
Providence - 80 South Water Street
Philadelphia - 11 North Water Street
Chicago - - 224 Randolph Street
Charlotte, N. C. - - Trust Building
Montreal - - - 6 Lemoine Street

"COMMERCIAL"
DENATURED
ALCOHOL

(Completely or Specially Denatured)

IN BARRELS, HALF BARRELS
TEN AND FIVE GALLON CANS

The Commercial Distilling Co.
JOHN E. BEGGS, General Manager
DISTILLERS OF
SPIRITS, ALCOHOL, WHISKEY AND GIN
TERRE HAUTE, IND.

The American Cotton Oil Co.

Union Oil Co. ★ PURE SALAD Oil ★ Providence, R.I.

27 BEAVER STREET.
NEW YORK CITY.

Cable Address: "AMCOTOIL," New York.

Cottonseed Products.

OIL, LINTERS,
CAKE, ASHES,
MEAL, HULLS.

GOLD MEDALS AWARDED:

Chicago, 1893. San Francisco, 1894.
Atlanta, 1895. Paris, 1900.
Buffalo, 1901. Charleston, S. C., 1902.
St. Louis, 1904.

American Linseed Company,

MANUFACTURERS AND REFINERS OF

Linseed Oil, Cake, Meal and Ground Flaxseed

"Lubrix" Drilling Compound. Pure Linseed Oil Soap.

SPECIAL OILS:

RAW,	CALCUTTA VARNISH,	VACUUM RAW,
BOILED,	CLEVELAND RAW,	DEAN REFINED,
BLEACHED,	SPECIAL "A"	C. & T.,
P. M. P.,	CLEVELAND VARNISH,	CLEVELAND REFINED,
CALCUTTA RAW,	LEAD GRINDERS' OIL,	C. V. (DOMESTIC).

AMERICAN LINSEED COMPANY,

100 William St., New York **Old Colony Building, Chicago**

ST. LOUIS, CLEVELAND, MINNEAPOLIS, BALTIMORE, SAN FRANCISCO, BUFFALO,
PHILADELPHIA, PORTLAND, ORE., RICHMOND, TOLEDO BOSTON, DETROIT.

KELLOGGS & MILLER

ESTABLISHED 1824

AMSTERDAM, N. Y.

Independent Manufacturers of Guaranteed
STRICTLY Pure (Old Process)

RAW **LINSEED OIL** BOILED

OIL CAKE, OIL MEAL, CLEANED and GROUND FLAXSEED

To insure against receiving substitutes, ask for the **"Amsterdam" Linseed Oil. Boiled Linseed Oil** is a specialty with us, **we warrant it** to be **genuine kettle boiled,** over wood fires in the old fashioned way.

TRINITY COTTON OIL CO.

MANUFACTURERS AND

Refiners of Cottonseed Oil

DALLAS, TEXAS, U. S. A.

Cable Address, - - - "Trinity"

ELBERT & WERLEMANN, Inc., 68 Broad St., New York.
IMPORTERS OF
SESAME OIL
Correspondence from Buyers Solicited

TAYLOR BROKERAGE COMPANY
BROKERS,
Cotton Seed Products and Fertilizers
——OFFICES——
MACON, GA. and JACKSONVILLE, FLA.
NEW YORK CORRESPONDENTS:
HOPKINS, DWIGHT & CO.

Louisville Cotton Oil Co.,
REFINERS OF COTTON OIL
ALSO FIRST, IF NOT ONLY
LICENSED AND BONDED
COTTON SEED OIL WAREHOUSE
IN UNITED STATES

Brings PRODUCERS, DEALERS and CONSUMERS of COTTON SEED OIL in closer touch with each other than ever before and at less cost than by any other method. It also enables the speculatively inclined capitalist to buy and sell Crude and Refined Cotton Seed Oil without Mill or Refinery, working on his own judgement entirely.
Write for full information.

SPECIAL BRANDS:

"Royal" Prime Summer Yellow. "Acidity" Summer White Soap Oil.
"Progress" Extra Butter Oil "Ideal" Prime Summer White.
Progress" Choice Cooking Oil. "Cottopalm" Special Cooking Oil
"Louisville" Choice Butter Oil.

MADE ONLY BY
LOUISVILLE COTTON OIL CO., Louisville, Ky.

Codes Used:—Private, Twentieth Century, A. B. C.
4th Edition Western Union and Lieber.
Cable Address:—"COTTONOIL," Louisville.

OIL MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 31.

Saturday Noon, April 27, 1907.

Vegetable Oils.

LINSEED OIL. — There has been nothing of special interest during the past week, or has anything occurred of sufficient importance to influence the market one way or another. The general tone has been remarkably steady with, if anything a firmer tendency. Sales under 40c. are no longer talked of. If any oil has been sold at 39@39½ cents the transactions have been kept quiet. Crushers continue to quote the old card prices of 41c. for out-of-town oil, and 42c. for city, but for round lots the usual inducement of 1 cent under has been offered. Business, while of moderate volume, has been on the whole disappointing, and practically altogether of a routine nature. New contracts are not in order and jobbing trade has been delayed by the lateness of the season. Notwithstanding, there are few complaints and prospects are at least reasonably bright for a good showing at the end of the spring season.

Exports of Flaxseed from New York.
BY COUNTRIES, IN BUSHELS.

	For week.	Since Aug. 1, 1906.	Same time last year.
Belgium	....	73,330	217,791
Denmark	....	8,693	25,055
England	....	110,492	93,806
France	....	82,930	186,353
Germany	....	266,090	114,922
Ireland	....	.....	.....
Netherlands	....	141,420	393,150
Norway and Sweden	....	62,429	.....
Scotland	....	.....	.....
Totals	....	747,399	1,031,077

Exports of Flaxseed from Philadelphia.
BY COUNTRIES, IN BUSHELS.

	For week.	Since Aug. 1, 1906.	Same time last year.
Belgium	....	43,154	.....
England	....	68,571	.....
Germany	....	43,631	8,375
Netherlands	....	624,233	74,315
Scotland	....	7,700	.....
Totals	....	787,289	82,690

Exports of Flaxseed from Boston.
BY COUNTRIES, IN BUSHELS.

	For week.	Since Aug. 1, 1906.	Same time last year.
England	....	11,916	.....
Netherlands	....	90,904	.....
Totals	....	102,820	.....

COTTONSEED OIL. — There was practically no change in prices at the opening of the week, and trading was extremely quiet, with operations confined to 100 barrels of July at 44¼c. General conditions appeared to be about evenly balanced, inasmuch as offerings and demand were comparatively light. The receipts at this port have been seasonably heavy, but April contracts have absorbed everything that has come to hand, and the position of the "real stuff" on spot has continued exceedingly firm. Reports of an improved demand for the lower grades, with the increasing scarcity of the better descriptions and later in the week, a little bull manipulation in the May and July positions, have all contributed strength to the general situation. The mental attitude of the general rank and file, however, has been fairly reflected in the absence of speculation. Many traders, who are now out of the market, will not start operations again until a decisive move has been started, either one way or the other. Transactions in futures beyond September have been light, and will probably continue so until the development of the new crop becomes more pronounced. Advices from various seed growing sources are not all that could be desired. Some of the Mississippi private reports are not favorable; they state that rotting is occurring. Replanting will be necessary in parts of the Carolinas and Georgia, and vermin are becoming more prevalent. Some replanting will have to be done in Texas.

Information at hand from Galveston states the weather is giving the bulls ground for confidence. It is far from what it should be, and taking into account that April is about at an end, the developments for the month may be said to have favored the bull, rather than the bear side.

Toward the close of the week there was more interest manifested in the May and July positions, and at leading quarters it was stated that many of the shorts in the former month had switched their positions to the latter. At times it appeared as though leading operators were endeavoring to bid up the market, but the general dullness in tallow and other competing greases and a decline of fifteen points in the lard market were sufficient to put a damper on any violent upward demonstration. Off oils have been in fair request and the quantity known as "good" has ruled steady at 42¾@43c. The soap-makers, both foreign and domestic, have been in the market for moderate quantities and total sales for the week have probably aggregated 2,000 barrels. The foreign demand for the better grades shows no material improvement. The total exports so far this season are approximately 495,000 barrels, against 525,000 barrels for the same period last year. There was no especial feature at the close. Prices showed declines of ¼@1c. from those of the previous week. Offerings of crude oil have been light and prices have been firmly sustained at 36@36½c. Offerings of odd lots have indicated the cleaning out process, incident to the closing of the mills. Below will be found a detailed market report of transactions on the Produce Exchange for each day during the past week. The closing prices Saturday are also given for comparison.

MONDAY.—Trading was exceedingly light with transactions the smallest this year. The quotations of options showed but little change as did also those of spot oils. The receipts at this port were 2,060 barrels. The sales were 100 July at 44¼c. April closed 45@56c., May 44¾@45¼c., July 44@44¼c., September 43¼@44c., October 39¼@40c., December 35¾@36¼c., April off oil 41@43½c., May do. 41@43½c., as to quality.

TUESDAY.—The demand was more active both for nearby and futures.

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Offerings were not heavy and the bulls little difficulty in marking up prices. Outside business continued quiet, owing to the disposition of the general rank and file to keep out until a definite movement is started either one way or the other. The receipts were 1,131 barrels. The sales aggregated 2,200 barrels and included 200 May at 45½c., 200 do. at 45½c., 200 July at 44c., 1,200 September at 43½c., 100 do. at 43¾c., 100 October at 39½c. After the close 100 May at 45½c. and 100 July at 44½c. April closed 45¼@46c., December 35¾@36½c. April off oil 41@43½c. and May do. 41@43c., as to quality.

WEDNESDAY.—The market was dull with prices more or less irregular. Quotations were firm at the opening with a disposition to advance, but a fifteen point break in the lard market late in the day put a damper on the upward movement in cottonseed oil and the close was heavy except for the April position. The receipts were 1,300 barrels. The sales amounted to 1,100 barrels and included 500 May at 45½c., 200 do. at 45⅝c., 300 July at 44¾c. and 100 April good off oil at 43c. April closed 45¾@46¼c., May 45@45½c., July 44¼@44¾c., September 43¼@43¾c., October 39¼@39¾c., December 35½@36¼c., April off oil 42@43½c. and May do. 41@43c.

THURSDAY.—More speculative interest was manifested in the nearby deliveries, and quotations ruled comparatively steady throughout the day. The prevailing small stocks at supply sources and the failure of spot accumulations have increased the uneasiness in the May and July positions. Receipts amounted to 2,380 barrels. The sales aggregated 2,400 barrels and included 100 April at 45¾c., 1,000 May at 45½c., 600 July at 44½c. and 700 do. at 44¾c. September closed 43½@43¾c., October 39¼@39¾c. and December 35½@36¼c. April off oil closed 41@43½c., May do. 41@43c., according to quality.

FRIDAY.—The tendency was slightly easier in a dull and uninteresting market. Transactions aggregated 2,100 barrels, 1,600 of which were confined to the September option at prices ranging from 43½@43¾c. The close was barely steady, with quotations the same to ½c. lower. Receipts were 1,762 barrels. The sales were 200 May at 45c., 200 July at 44½c., 200 September at 43½c., 1,000 do. at 43¾c., 400 do. at 43½c. April closed 45@46c., October 39@39½c., December 35½@36c., April off oil 42@43c., 100 barrels good off oil at 42¾c., May off oil 40½@43c., as to quality.

Saturday.—General quietness prevailed throughout the market. The tendency was easier, but trading was at a standstill. The receipts were 1,005 barrels. The sales were limited to 100 barrels of September at 43½c.; April closed at 44½@45¼c.; May, 44½@45c.; July, 44@44½c.; September, 43@43½c.; October, 39@39¼c.; December, 35½@36c.; April off oil, 42@43c.; May do., 41@42c., according to quality.

EXPORTS OF COTTONSEED OIL FROM NEW YORK, BY COUNTRIES.

[Details of exports—quantities shipped to each port, name of vessel and declared value of each shipment—will be found on page 45.]

	For week ending April 26, 1907.	Since Sept. 1, 1906.	Same time last year.
Abyssinia	....	.....	108
Africa, Algiers	....	8,337	4,202
Egypt	30	428	3,317
South	140	1,106	2,838
West Coast	....	.....	95
Argentine Republic	688	4,634	882
Australia & New Z.	15	99	372
Austria	....	3,046	70,092
Belgium	60	2,751	5,654
Brazil	1,516	12,100	12,637
British East Indies	....	10	425
British E. Singapore	....	.....	.....
British Guiana	.....	1,800	1,301
British West Indies	138	3,460	3,591
Central America	....	139	66
Chile	23	1,395	493
China	....	10	.....
Cuba	32	2,434	1,540
Danish West Indies	....	.....	209
Denmark	....	190	995
Dutch Guiana	....	4	.....
Dutch West Indies	65	81	28
Ecuador	....	194	.....
England	53	14,784	17,479
France	350	56,200	69,535
French Guiana	3	213	216
French West Indies	....	4,361	3,924
Germany	50	10,162	11,483
Gibraltar	....	205	1,760
Greece	....	.....	10
Italy	1,360	25,888	18,106
Japan	....	446	1,536
Malta	107	1,336	2,127
Mexico	....	47	303
Morocco	....	.....	24
Netherlands	100	20,079	6,955
New Brunswick	....	.....	.....
Newfoundland	....	.....	.....
Norway and Sweden	....	935	1,520
Nova Scotia	....	.....	10
Panama	53	762	.....
Peru	....	.....	100
Porto Rico	82	461	142
Roumania	....	2,275	75
Russia	....	.....	50
San Dom. and Hayti	330	2,447	1,927
Scotland	....	2,250	5,722
Spain	....	25	.....
Turkey	....	.....	1,755
U. S. Colombia	....	96	790
Uruguay	....	.....	2,944
Venezuela	2	133	156
Totals, bbls.	5,374	185,613	258,493

EXPORTS OF COTTONSEED OIL FROM NEW ORLEANS, BY COUNTRIES.

	For week ending April 26, 1907.	Since Sept. 1, 1906.	Same time last year.
Austria	....	.....	4,550
Belgium	1,355	9,541	11,064
Central America	....	.....	27
Cuba	100	3,512	454
Denmark	....	1,225	1,300
England	125	32,449	12,240
France	....	35,498	16,650
Germany	1,510	24,774	21,684
Ireland	275	1,145	200
Italy	....	800	260
Mexico	....	1,102	677
Netherlands	....	77,876	85,415
Norway and Sweden	....	2,500	850
Panama	....	142	.....
Scotland	....	2,605	1,935
U. S. Colombia	....	.....	.....
Totals, bbls.	3,365	194,169	153,315

EXPORTS OF COTTONSEED OIL FROM BALTIMORE, BY COUNTRIES.

	For week ending April 26, 1907.	Since Sept. 1, 1906.	Same time last year.
Belgium	....	200	1,555
Denmark	....	.....	100
England	....	1,850	981
France	....	.....	400
Germany	....	2,030	3,301
Ireland	....	.....	.....
Mexico	....	.....	.....
Netherlands	600	3,684	3,822
Scotland	....	150	230
Totals, bbls.	600	7,914	10,289

EXPORTS OF COTTONSEED OIL FROM NEWPORT NEWS, BY COUNTRIES.

	For week ending April 26, 1907.	Since Sept. 1, 1906.	Same time last year.
England	....	1,056	1,948
Germany	....	300	8,052
Netherlands	....	200	8,229
Totals, bbls.	....	1,556	18,229

EXPORTS OF COTTONSEED OIL FROM GALVESTON, BY COUNTRIES.

	For week ending April 26, 1907.	Since Sept. 1, 1906.	Same time last year.
Austria	....	.....	7,400
Belgium	....	100	200
Cuba	....	241	.....
Denmark	....	.....	100
England	....	500	.....
France	....	.....	.....
Germany	250	6,017	3,000
Mexico	....	3,566	9,255
Netherlands	....	38,938	29,765
Scotland	....	1,200	201
U. S. Colombia	....	.....	.....
Totals, bbls.	250	51,462	49,521

EXPORTS OF COTTONSEED OIL FROM SAVANNAH, BY COUNTRIES.

	For week ending April 26, 1907.	Since Sept. 1, 1906.	Same time last year.
Austria	....	.....	317
Denmark	....	.....	.....
England	....	.....	1,881
France	....	2,066	3,430
Germany	....	16,960	6,940
Italy	....	2,150	.....
Netherlands	....	28,437	26,650
Norway and Sweden	....	.....	4,484
Spain	....	120	.....
Totals, bbls.	....	48,733	43,702

EXPORTS OF COTTONSEED OIL FROM PHILADELPHIA, BY COUNTRIES.

	For week ending April 26, 1907.	Since Sept. 1, 1906.	Same time last year.
Denmark	....	.....	.....
Germany	....	225	.....
Netherlands	....	.....	.....
Norway and Sweden	....	1,025	.....
Scotland	....	100	.....
Totals, bbls.	....	1,350	.....

TOTAL EXPORTS AT PRINCIPAL PORTS.

From—	For week ending April 26, 1907.	Since Sept. 1, 1906.	Same time last year.
New York	5,374	185,613	258,493
New Orleans	3,365	194,169	153,315
Baltimore	600	7,914	10,289
Newport News	....	1,556	18,229
Galveston	250	51,462	49,521
Savannah	....	48,733	43,702
Philadelphia	....	1,350	.....
Totals, bbls.	9,859	490,497	533,549

(Special Cable to Oil, Paint and Drug Reporter)

Rotterdam Cottonseed Oil Market.

Rotterdam, April 26, 1907.

Market firmer. P. S. Y. spring months, O. S. Y. spring months.

(Special Cable to Oil, Paint and Drug Reporter)

Marseilles Cottonseed Oil Market.

Marseilles, April 26, 1907.

The market is very quiet. Scarcely any movement. Consumption substituting sesame peanut oils for cotton spot P. S. Y., 75; P. W. Y., 80; October-December P. S. Y., 63; P. W. Y., 69; P. W. Y. November-December, 66. Sales effected.

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(Special Cable to Oil, Paint and Drug Reporter)

Liverpool Cottonseed Oil Market.

Liverpool, April 26, 1907.

Oil lifeless, £2 6s. 10d. Cake and meal, quiet. Texas 65, Orleans £6 2s. 6d. May-June seed steady. Little doing. Egyptian £7 3s. 9d., Seasiland £6 1s. 5d.

(Special telegram to the Reporter.)

Macon Cottonseed Oil Market.

Macon, April 26, 1907.

Market steady. Very little oil unsold. Only few scattering lots yet to come out. Prime cottonseed oil 36½c. Oil on sample, 33c. Prime meal, $21.

CHINA WOOD OIL.—Prices were firmly held owing to light spots, but in the absence of any special demand sales for the week covered small lots. Offerings of parcels for prompt shipment from China were practically nil and only parcels for shipment within three months were obtainable on the basis of 7½c. per lb.

ROSIN OIL.—The market was firmer and prices were advanced in sympathy with the strong market for the crude material. The demand was fairly active, but mostly confined to small lots for urgent requirements on the basis of 27½c. per gallon for first run of oil. Carlots were quoted at 27c. f. o. b. New York.

Cocoanut Oils, Etc.

During the past week cocoanut oils and palm kernel oil, in sympathy with tallow, broke considerably, especially palm kernel, which was offered freely by short sellers on a parity of 7⅝@7¾c., Atlantic seaboard. Considerable business was done in this article in the United States as well as on the Continent, resulting in a firmer feeling, and Friday's cables reported more buyers than sellers at present figures. While prices have not actually advanced, a sharp upward turn is looked for.

CEYLON.—Spot supplies are scarce. One carload might be obtained at 9⅛@9¼c. May-June delivery is quoted at 9c.; May-June shipment from India at 8⅞c., and for a line of tonnage from June to December shipment from India 8¾c. might go through.

COCHIN.—Also very firm and scarce on spot at about 10⅝@10¾c., but on vessels arriving considerably better than this could be done, prices decreasing from spot quotations to 9¾c. for far-off positions. Intermediate deliveries can be obtained at intermediate prices.

PALM.—Lagos broke to 6¼c. and prime red to 6¼c. for shipment. The spot position, however, is in firm hands at the old basis of 7¼c. for genuine Lagos and 7c. for prime red.

CORN.—The price declined 15 points on Monday owing to a falling off in the demand and to weakness in other vegetable oils. The revised quotations are 5.20c. per lb. in car lots and 5.25c. small parcels, ex dock New York.

OLIVE.—Available supplies of pure commercial olive oil are rapidly diminishing, and for this variety dealers are asking 87½@92½c., according to quantity. Shipments on outstanding contracts have been light. There have been steady sales of prime green foots at 6⅜@6½c., according to quantity and seller. The steamships Neckar and Irene, which arrived on Monday, brought in 825 bbls. of olive oil and 525 bbls. of foots respectively.

MUSTARD.—In the absence of spot supplies, no prices are being quoted.

RAPE.—The market showed little or no change during the interval. Demand has been of fairly good proportions. Prices rule steady on the basis of 68@70c. for refined; 70@72c. for blown; 73@75c. for burning, according to quality and seller.

Animal and Fish Oils.

COD.—Prices rested on a steady basis, but the tendency was less firmer, owing to the further decline in the market for medicinal codliver oil. Quotations, however, were not changed, and sales in both round and small lots continued on a moderate scale. Spot jobbing lots were quoted on the basis of 40c. and upward per gallon for Newfoundland guaranteed pure oil. Round lots for prompt shipment were scarce, due to most manufacturers being still sold ahead.

DEGRAS.—Additional contract sales embraced 200 bbl. lots and upward for forward deliveries from primary markets on the basis of current quotations. German high grades were in good request, with sales of 1,000 bbls. to arrive at about 2.30c. per lb., delivered duty paid, and 300 bbls. of French Moellen at about 4¾c. duty paid delivered. Spot parcels of German were quoted at 2.40@2.65c. per lb., according to terms of sale. French Moellen met with sales of spot lots at 4⅞@6⅝c. Inquiries were mostly confined to the better qualities, which are not overplentiful.

LARD OIL.—In the absence of large buying, business throughout the week

E. F. DUGGAN

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IT'S TIME TO WAKE UP

and cut out the petroleum. You will make a better reputation, finer goods and *more money* by using

Georgetown AAA Brand

TRUE SPIRITS OF TURPENTINE

The most uniformly high grade turpentine in the world. Double distilled by chemists, not *cooked* by laborers.

The Charles E. Sholes Company

7 Sears St., Boston | 164 Front St., New York, 44 So. Water St., Philadelphia | 249 Cherry Ave., Chicago

was confined to small spot lots to meet immediate wants. Prices were easier in tone in sympathy with the expected decline in the raw material in the near future. Only occasional car lots changed hands on the basis of 74c. and upward per gallon for prime oil, according to quantity and acid test. The jobbing demand for spot lots continued slow on the basis of 75c. and upward for prime.

MENHADEN.—Aside from reports to the effect that several large contracts covering new season's crude oil are still pending sale, nothing of special interest has developed. Owing to the stormy weather along the coast, the menhaden fishing fleets have not started in to fish. Prices of pressed oil remained firm under a seasonable jobbing demand, and fair sales of brown and light strained on the basis of 33c. and upward per gallon, according to terms of sale. Car lots were offered sparingly at about 32c., but few sales could be traced.

NEATSFOOT.—There has been no improvement in the demand, and general dullness pervaded the market. Several car lots of cold test sold for export on the basis of 90@91c. for 20 degrees cold test. For home consumption no sales of importance could be traced. Car lots of cold test, 20 deg. test closed at 92c. and upward, and prime at 56c. and upward. The jobbing demand continued light, with sales on the basis of 93@94c. for 20 deg. cold test and prime at 57@58c. per gallon, according to quality, quantity and terms of sale.

RED OIL.—In response to the weakness of prices for the raw material the market showed a sagging tendency and parcels of saponified red oil were available at 6⅝@6¾c. per lb. on the spot, according to make and terms of sale. Elaine was quoted at 44@45c., but few sales could be traced. Sales covered about 250 bbls. and upward of saponified red oil for export at about 6½c. Car lots of elaine were quoted at 44c. and upward, according to make and terms of sale. Spot jobbing lots were in slow demand on the basis of 6¾c. and upward per lb. for red saponified, and at 45c. and upward per gallon for elaine, according to terms of sale.

TALLOW OIL.—Absence of demand for large lots, and a light jobbing trade served to have a weakening influence on prices, and car lots could have been purchased on the basis of 64c. and upward for acidless and 60c. and upward for prime, according to terms of sale. Export sales embraced two car lots of acidless at a shade under current quotations. The jobbing demand continued slow, and for spot jobbing lots dealers named on the basis of 61c. for prime, according to quality and quantity.

WHALE AND SPERM.—The New Bedford market for crude oil presented no change, and general dullness was apparent. The stock at New Bedford on April 22, of crude sperm was 700 bbls. and whale oil nil. The jobbing demand for the manufactured grades in the local market was seasonable, and spot lots brought on the basis of 75c. and upward for sperm bleached winter and 72c. and upward for natural winter. Sales of whale bleached winter were fair at 48c. and upward, all according to quality, quantity and terms of sale. Car lots could have been purchased at 1@2c. lower per gallon.

Mineral Oils.

The call for supplies on contracts was seasonable and the volume of new business booked satisfactory. Quotations were firm and for the standard makes, less the usual discounts, according to terms of sale. Texas high grade lubricants were in good request at prices slightly below quotations for the standard makes.

Oil Cake, Meal, Etc.

There has been no change in market conditions during the past week. If anything there is a little better tone to the market for both cake and meal, but the movement on the whole continues slow. Spot cake was offered as low as $26, but future deliveries were held at an advance of 25 to 50 cents over this figure.

Wax, Lard, Tallow, Etc.

PARAFFINE WAX.—There continued a seasonable demand from the home trade and exporters and the withdrawals on contracts were fairly large. Manufacturers quoted unchanged prices for refined wax on the basis of 6¼@6c. for 120 degrees melting point. Crude closed firm at 5¼@5½c., according to color and quantity. The exports from New York for the week ending April 25 aggregated 3,978,940 lbs., against 2,019,680 lbs. the preceding week.

WHALEBONE.—The New Bedford market was quiet, and no transactions were reported. The approximate stock at New Bedford on April 22 was as follows:—At New Bedford, Arctic, 25,000; Northwest, nil; South Sea, nil. Elsewhere:—Arctic, 12,000; Northwest, nil; total, 37,000.

LARD.—The lard market has been rather steady for the past week, with minor fluctuations, and at this writing closes considerably better than generally expected in the trade, not so much on cash stuff as on apparently more disposition on the part of shorts to cover some of their sales. Choice Western lard is quoted at 9.10c., New York delivery, with Middle West at 8.85@8.90c. c. & f.; city lard, 8¼@8⅜c.; pure refined, 9.25c. f. o. b. steamer; compounds, 7¾@8¼c., according to delivery.

TALLOW.—Our advices discounted the expected lower London auction by selling on Tuesday 200 hogsheads of prime city tallow at 6c. London cable on Wednesday came in 9d@1s. lower, 1,700 offered, 900 sold, and our soapmakers dropped their bids to 5¾c. At this price 500 hogsheads were sold, making the movement for the week, exclusive of the weekly contracts, 700 hogsheads, all for the home trade. The market closes steady, with most of the melters well sold up on their May production. Edible tallow has been dull, 100 tierces taken at 7c., Government inspected, while the uninspected can be bought at 6⅝@6¾c. Choice tallow has been taken to some extent for export at 6¼@6⅝c. f. o. b., and the local business has been at such irregular rates that quotations might mislead. Apparently there is a little steadiness at the close.

STEARINES.—Oleo stearine has experienced another dull week, one carload selling early at 9c. for second half of May and two carloads later for prompt shipment at 8¾c. Yellow grease stearine was lately sold at 6½c., but nothing of moment has been reported for the past few days, though some higher grade stearine sold for exportation at 6¼c. Strictly white stearine is nominally 6½c., but there are rumors of trading in low white at quite a fraction below this. Lard stearine, city and Western, 9¾c. nominal.

GREASES.—The grease market has been influenced by somewhat dull trading in oils, besides, by the freer offerings of raw material from the West, so that there has been a total decline of approximately 1¼c. a pound. Choice Western yellow grease has been offered at 5¼c. laid down here and bids of 5½c. requested; B white, 5½c. and A white, about 5¾c. House sold early in the week at 5½c. and since then at 5¼c. Brown is quotable at 4½@5c.

STEARIC ACID.—While no special activity was noted during the past week, a seasonable volume of business was transacted and prices ruled steady at 10@11c. for single pressed and 12¼@13c. for double pressed, according to quantity and seller.

CANDLES.—Market conditions are unaltered. Manufacturers have not as yet caught up on old orders, and new business from domestic and foreign consumers continues to come in in good volume. Prices remain firm.

The Price of Lard at Chicago.

April.	May.	July.	September.
20	8.62½@8.62½	8.75 @8.77½	8.87½@8.90
22	8.62½@8.65	8.75 @8.77½	8.87½28.90
23	8.67½@8.70	8.80 @8.82½	8.92½@8.95
24	8.55 @8.67½	8.70 @8.77½	8.82½@8.92½
25	8.55 @8.55	8.67½@8.70	8.80 @8.82½
26	8.57½@8.67½	8.72½@8.82½	8.85 @8.97½

The Interstate Cottonseed Crushers' Association[1]

SPECIAL NOTICE OF RULES COMMITTEE.

Secretary Gibson, of the Interstate Cottonseed Crushers' Association, has sent out the following circular letter from Dallas, Texas, under date of April 24, 1907:—

"By direction of Mr. L. A. Ransom, chairman, I herewith give special notice to all the members of the Interstate Cottonseed Crushers' Association that the Rules Committee will meet at our headquarters, Inside Inn, Jamestown, Va., May 18, 10 o'clock a. m., preceding our annual convention on the 21st, 22d, 23d and 24th, for the purpose of going over and getting the rules in shape for amendment and adoption when the convention assembles, and this is to earnestly request if you have any changes you wish made in them, or new ones to suggest for adoption, that you submit same in writing to Mr. L. A. Ransom, chairman, postoffice box No. 813, Atlanta, Ga., up to May 12, or after that date to him care Inside Inn, Jamestown, Va., and if possible to be present at this meeting, to which you are cordially invited, as it is very important that we get the rules in such shape as to be fair to both buyer and seller. Yours very truly,

"Robert Gibson,
"Sec'y and Treas."

OBITUARY.

Robert W. Powers.

Robert W. Powers, president of the Powers-Taylor Drug Company, of Richmond, Va., died at his home in that city last Friday morning. Mr. Powers had been engaged in the drug business in Richmond since 1852 in which year he was employed as a clerk by Purcell, Ladd & Co., with which company he remained until 1860, when he opened a retail drug store, which he conducted successfully during the Civil War.

In speaking with a representative of the Reporter of his difficulty in obtaining

ROBERT W. POWERS.

supplies, Mr. Powers said that he had to depend largely on blockade runners for them, but notwithstanding this he was successful in keeping a good stock under the most unfavorable circumstances.

After the fall of Richmond, and the termination of the war, Mr. Powers started in the wholesale drug business, in which he was engaged up to the time of his death. Mr. Powers was elected a member of the board of control of the National Wholesale Druggists' Association in 1888, and in 1890 was elected first vice-president. He was a man of strict integrity and square dealing, and was highly respected by all who had the pleasure of knowing him. During his lifetime, Mr. Powers filled many positions of trust; he was for years a member of the Richmond school board, a member of the Board of Aldermen, president of the Retreat for the Sick, and a director of several charitable institutions.

TRADE ITEMS

Plans have been prepared for a four-story candle factory and a rotary kiln-house at Point Breeze, Philadelphia, for the American Refining Company.

Fire visited the New York office of Berry Brothers, at 258-260 Pearl street, last Thursday afternoon. Considerable damage was done to the stock of varnishes before the fire was extinguished.

By the toppling over of a smoke-stack at the glass works of the T. C. Wheaton Company at Millville, N. J., last Wednesday morning two young women were crushed to death and a third was so injured that she died half an hour later.

One hundred and twenty-five seamen employed on five sailing vessels of the Standard Oil Company, now loaded at Constable Hook and ready to sail for China and Japan, threaten to strike unless their wages are increased from $18 to $20 a month.

Plans for a four-story candle factory, 57 feet 6 inches, and a rotary kiln house 28 feet 2 inches by 76 feet, to be built at Point Breeze, Pa., for the Atlantic Refining Co., of Philadelphia, have been filed with the Bureau of Building Inspection.

The Indianapolis Paint and Color Co., of Indianapolis, Ind., has taken a ten-year lease on the five-story brick building at 118-120 Chesapeake street, that city, and will establish a complete paint factory. The glass department will be enlarged and featured when the firm gets its new factory established.

NAVAL STORES.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 31.

Saturday Noon, April 27, 1907.

SPIRITS OF TURPENTINE.—Prices weakened in response to general dullness and in sympathy with lower prices at primary points, which culminated in a decline for the week of 1c. per gallon to 69@69½c. for yard-lots of machine-made bbls. and ½c. less per gallon for oil bbls. The more favorable weather failed to stimulate the demand, and buying was confined to small lots at prices ranging from 70½c. down to 69½c. for spot jobbing lots of machines. In the South there continued an absence of foreign demand, and on the whole the month of April in spirits of turpentine has been very disappointing. The decrease in the production of turpentine is being offset by substitutes and adulterants, which are being freely purchased in Europe and in this country. It is claimed that this has had a market bearing on the pure turpentine prices, restricting an upward movement. Another disturbing element will be the renewal of activity into market by the old producers affiliated with the Jacksonville Naval Stores Co. at Jacksonville. Sales by first hands in the local market were light, embracing 500 to 600 bbls. at 69½c. for machines on the spot. The close was weak, with indications for a further decline. Receipts at New York for the week aggregated 3,755 bbls.

ROSINS.—The scarcity of spot goods, particularly the low grades and a good demand resulted in a sharp advance in prices for the week of 20c. on the common and good and 5@10c. on all other grades. The rise in the South also influenced a decided firmer feeling among holders here. At Savannah and other Southern ports the demand for common rosins was unprecedented, and during the past six months has broken all records. Prices are steadily advancing, and high record points are assured. Absence of offerings restricted trading in large lots, and sales reported covered some 600 bbls. and upward of common and good strained in yard here at $4.80. Guaranteed 100 per cent. gradings in large iron bound bbls. were held at 5@10c. higher. The jobbing trade was moderately fair. Sales of the other grades covered mostly medium grades. The receipts at New York for the week amounted to 9,522 bbls.

TAR AND PITCH.—Trade in tar continued slow and firm bids at prices below current quotations on round lots would have led to business. Small lots of 25 to 50 bbls. changed hands on the basis of $6.50@6.75 for oil bbls., gauging 50 gallons f. o. b. New York, while retort tar sold at $6@6.50 per bbl. The demand for pitch was active and sales covered 600 to 800 bbls. for prompt delivery to local and out-of-town points at $3.25 per bbl., f. o. b. New York. Holders advanced prices 15c. to $3.50 per bbl., owing to the rise in the raw material. Receipts of pitch and tar at New York for the week amounted to 94 bbls. and 1,034 bbls., respectively.

The receipts of naval stores at New York for the week ending April 26 were as follows:—

	Spirits.	Rosin.	Tar.	Pitch.
Saturday	380	892	10	9
Monday	790	2,994	...	...
Tuesday	421	1,238	806	25
Wednesday	200	65	67	...
Thursday	1,664	1,723	151	60
Friday	300	2,810	...	...

Closing telegrams received at New York read as follows:—

Charleston, S. C., April 27, 1907.
Turpentine and rosin, nothing doing.

New Orleans, La., April 27, 1907.
Receipts, rosin, 365; turpentine, 26 barrels. Exports, none.

Savannah, Ga., April 27, 1907.
No naval stores market—holiday.

Wilmington, N. C., April 27, 1907.
Spirits turpentine, nothing doing; receipts, 2. Rosin, nothing doing; receipts, 411. Tar firm, $2.30; receipts, 119. Crude turpentine firm, $3.50, $4.90 and $5.25; receipts, 18.

Liverpool, April 27, 1907.
Turpentine—Spirits quiet, 51s. 3d. Rosin—Common firm, 10s. 10½d.

London, April 27, 1907.
Turpentine—Spirits, 52s. 1½d. Rosin—American strained, 11s.; fine, 15s. 9d.

(Special to Oil, Paint and Drug Reporter.)

Savannah Naval Stores Market.

Savannah, Ga., April 25, 1907.

TURPENTINE.—The spirits of turpentine market of late seems to have been rather quiet, and being offered for sale at 65½c., which price has ruled very freely during the week. Some sales reported carried over from

day to day, the supply having been in excess of the demand, though the price has been the same each day, which is 1½c. higher than what it was a year ago.

The table following gives the figures for the past week:—

April	Prices.	Sales.	Rcts.	Shpts.	Stock.
20	65½	125	380	606	3,978
22	65½	209	165	...	4,143
23	65½	667	629	643	4,129
24	65½	305	487	155	4,461
25	65½	571	630	310	4,781
Totals	...	...	2,291	1,714	....

ROSIN.—The rosins market has been reported firm of late, and the prices for the different grades have been about the same the entire week, W. W. selling for $5.80 and C, B, A, $4.30. Of course, there has been some variations from these figures, but very slight.

Attention is called to a shipment of rosin forwarded to St. Petersburg on the steamship Peruvianna, sailing this week, with a cargo of 13,810 barrels of rosin. This is one of the largest cargoes of rosin for a single shipment that has ever left this port.

The prices for the past week follow herewith:—

April	Prices.	Sales.	Rcts.	Shpts.	Stock.
20	$5.80	876	1,317	15,488	23,696
22	5.80	1,632	230	2,178	21,748
23	5.80	703	2,401	2,342	21,807
24	5.80	1,288	2,225	350	23,682
25	5.60	1,587	1,186	200	24,668
Totals	...	....	7,359	20,558	....

Grade.	April 20 Price.	April 20 Sale.	April 22 Price.	April 22 Sale.	April 23 Price.	April 23 Sale.
W. W.	$5.80	246	$5.80	189	$5.80	69
W. G.	5.70	103	5.70	63	5.70	50
N	5.60	42	5.65	33	5.65	34
M	5.45	40	5.45	51	5.45	34
K	5.35	5	5.35	17	5.35	23
I	4.95	33	5.00	14	5.00	20
H	4.75	76	4.75	59	4.80	57
G	4.60	74	4.65	143	4.65	87
F	4.60	88	4.60	178	4.60	113
E	4.55	62	4.50	155	4.50	93
D	4.40	60	4.40	85	4.45	41
C, B, A.	4.30	47	4.30	45	4.35	82
Totals	...	876	...	1,032	...	703

Grade.	April 24 Price.	April 24 Sale.	April 25 Price.	April 25 Sale.
W. W.	$5.80	181	$5.60	299
W. G.	5.70	125	5.55	151
N	5.65	49	5.50	89
M	5.45	37	5.45	67
K	5.35	47	5.35	35
I	5.00	37	5.00	42
H	4.80	96	4.80	73
G	4.65	132	4.65	186
F	4.60	229	4.60	245
E	4.50	149	4.50	151
D	4.45	89	4.45	84
C, B, A.	4.35	115	4.35	165
Totals	...	1,288	...	1,587

RECEIPTS.

	Spirits.	Rosin.	Same time last year. Spirits.	Rosin.
This week	2,291	7,359	1,889	5,237
This month	7,852	23,954	9,381	24,581
This season	7,852	23,954	9,381	24,581

SHIPMENTS.

	Spirits.	Rosin.	Same time last year. Spirits.	Rosin.
This week	1,714	20,558	1,008	1,476
This month	9,530	41,702	7,868	19,983
This season	9,530	41,702	7,868	19,983

NAVAL STORES STATEMENT.

	Spirits.	Rosin.
Exports to-day	...	....
Exports since April 1	150	25,918
Exports since April 1, last year	1,325	6,150
Coastwise to-day	310	200
Coastwise since April 1	9,380	15,784
Coastwise since April 1, last year	6,543	13,833
Receipts to-day	630	1,186
Receipts to-day, last year	...	....
Receipts since April 1	7,852	23,954
Receipts since April 1, last year	9,381	24,581
Stock to-day	4,781	24,668
Stock to-day, last year	3,155	47,915

(Special to Oil, Paint and Drug Reporter.)

Charleston Naval Stores Market.

This has been a quiet and inactive week, both in spirits of turpentine and in rosin. There has not been a sale in either article, and quotations are not obtainable.

The receipts during the week have been 51 casks of turpentine and 118 barrels of rosin.

The exports have been 501 casks of turpentine and 200 barrels of rosin. The stock on hand to-day is 10 casks of turpentine and 150 barrels of rosin.

For the corresponding week last year there was not any transaction in either turpentine or rosin. The receipts during the week have been 10 casks of turpentine and 45 barrels of rosin. The exports have been no casks of turpentine and no barrels of rosin. The stock on hand was 59 casks of turpentine and 200 barrels of rosin.

(Special to Oil, Paint and Drug Reporter.)

London Naval Stores Market.

Our market for turpentine is dull at 51s. spot, 48s. 3d. May, 45s. 3d.@45s. 6d. July-Dec. There was some improvement at the end of last week, but this has been lost under pressure of resales of parcels tendered on the 24.; also in view of the offers of May delivery. French turpentine is lower and offered at 49s. 9d.

Rosin.—The high prices for low grades are maintained. American strained on the spot is held for 11s. ex wharf; pale grades are neglected; W. W. on the spot, 15s. 6d., ex wharf; N, W. G. and W. W. to arrive in the summer, 12s. 9d. c. i. f.; French and Spanish are offering below these prices.

The statistical position of spirits of turpentine in London, compiled in bbls., was as follows:—

	1907.	1906.	1905.	1904.
Stock April 13	16,386*	17,418	4,816	14,351
Del'd this week	1,711†	1,370	1,720	1,731
Since Jan. 1	21,415	22,724	23,397	25,978
	s. d.	s. d.	s. d.	s. d.
Price April 13	51 6	47 0	43 9	42 9
July-December	45 6	43 3	38 3	41 0
Savannah	67½c.	65½c.	57c.	54½c.

*Includes 1,622 bbls. French.
†Includes 277 bbls. French.

Foreign Oil Combine Collapses.

Foreign cables last week announced that the Austro-Hungarian oil combine has collapsed and prices have slumped 15 per cent. It is learned that the attitude of the Standard Oil Company's Austrian branch, the Vacuum Oil Company, was largely responsible for the failure of the refiners to reach an agreement.

That company is maintaining absolute silence with regard to its future plans. This arouses the suspicions of its competitors, who, fully realizing the Vacuum Oil Company's vast financial resources, fear that unpleasant developments are imminent. The prospects of the formation of a new combine in the near future are very slim.

London Drug Market.

(Continued from page 38.)

Gamboge, cs, 6o, 4s.
good fair slightly blocky
Siam pipe ..... cwt. 17 0 0 @17 2 6
Golden seal, bbl, 1o, 1s w. r.
(25 lbs. not) 0 4 3
Gum arabic, pkgs, 126o, 20s.
bold reddish part frosted.
cwt. 6 2 6
red sorts dull break ..... 0 90 0 @0 94 0
blocky red sorts ..... 0 75 0 @0 92 0
Gum benzoin, cs, 363o, 36s.
Siam very bold fine free reddish almonds ..... cwt. 28 0 0
hard block brown dust (40 lbs.) 0 77 6
pale seed part shivery block 6 5 0
pale grain part shivery block 9 5 0
pale pea size 11 15 0
Sumatra common to fair third ..... 0 90 0 @5 0 0
ordinary second ..... 6 0 0 @6 15 0
Gum myrrh, pkgs, 96o, 23s.
part before the auctions.
fair sorts ..... cwt. 0 85 0
good bold siftings 0 87 6
Gum asafoetida, cs, 263o, 77s.
good free almonds ..... cwt. 0 90 0
fair to middling pinky ..... 0 90 0 @0 67 6
ordinary brown ..... 0 50 0 @0 55 0
Gum euphorbium, serons, 25o, 25s, w. r.
fair ..... cwt. 0 7 0 @0 7 6
Honey, pkgs, 563o, 217s, part w. r.
Jamaica pale set ..... cwt. 0 22 6
yellow setting ..... 0 18 0 @0 19 0
Honolulu liquid bad flavor, w. r. ..... 0 12 6 @0 13 6
Calcutta setting yellow (125). 0 11 0
Ipecacuanha, bls, 46o.
Rio fair to good ..... lb. 0 7 7 @0 7 10
sea damaged 0 7 4
Minas sea damaged according to quality ..... 0 5 10 @0 7 3
Cartagena, dull ..... 0 5 6 @0 5 7
Kola nuts, pkgs, 16o, 1s.
dull West Indian halves .. lb. 0 0 2½
Menthol crystals, cs, 16o, 5s, w. r.
Yazawa ..... 0 8 1 @0 8 2
Nux vomica, bgs, 96o, 96s.
fair Madras ..... cwt. 0 9 0
Cinnamon bark oil, 10o, 10s.
according to quality .... oz. 0 0 9 @0 1 3
Citronella oil, 17o, 17s.
good ..... lb. 0 2 5 @0 2 6
Lime oil, cs, 8o, 4s.
distilled ..... lb. 0 3 1
Peppermint oil, cs, 43o, 30s, w. r.
H. G. H. ..... lb. 0 11 3 @0 11 6
Rhubarb, cs, 32o, 11s.
high dried very small rough round ..... lb. 0 0 11
high dried medium rough round 0 0 11½
Canton bold round 0 1 11
medium to bold flat 0 1 9
Sarsaparilla, bls, 96o, 83s.
gray Jamaica coarse to good, lb. 0 2 2 @0 2 5
native Jamaica grayish to red ..... 0 1 6 @0 1 8
gray Lima fair to good ..... 0 1 9 @0 2 1
Scabiac, pkgs, 49o, 8s.
good Madras ..... cwt. 9 0 0
Senna, bls, 336o, 172s, Tinnevelly part w. r.
common ..... lb. 0 1¼@0 0 2½
ordinary 0 0 2¾
fair 0 0 3¼
pods ..... 0 0 1¼@0 0 2½
Sticklac, bgs, 6o, 2s.
Siam ..... cwt. 0 150 0
Tamarinds, pkgs, 62o, 32s.
good Barbadoes (27) .... cwt. 0 16 0
good black Calcutta (5) 0 12 6
Wax, pkgs, 319o, 32s.
Jamaica good fair ..... cwt. 7 7 6 @7 10 0
Grenada pale and yellow .. 7 10 0
Madagascar ordinary brown to fair yellow ..... 0 10 0 @0 17 6
Zanzibar drossy 6 12 6
Italian bright yellow 0 85 0
Egyptian fair yellow 6 15 0
Australian good pale and gray 7 12 6

Sulphate of Quinine.—Continued stagnation prevails in this article and with the present indifference of operators it would be difficult to effect large sales. The spot price remains at 8d. per oz. nominally for second-hand lots of the best German brands, and the manufacturers' price is still unaltered at 10s. per oz.

(Special to Oil, Paint and Drug Reporter.)

London Closing Prices.

London, April 27, 1907.

Quinine, 7⅜s. Shellac, 217s. Menthol, 8s. 3d. Benzoin higher. Cascara cardamoms easier. Camphor, Ipecac and American peppermint lower.

According to a Battle Creek paper an invention that its discoverer believes will revolutionize the manufacture of paint has just been perfected by William D. Riley, of Muskegon, Mich. For nearly a decade Riley has been hard at work with his chemicals and believes that he has finally reached the desired end. An application for a patent has been made.

Telegrams, "Resin," London.

TURPENTINE ROSIN
RED LEAD LITHARGE
NITRITE OF SODA WHITE LEAD

JAMES WATT & SON
101 Leadenhall Street
LONDON, ENGLAND

Code, A. B. C., 4th and 5th Ed.

"TERABENTINE"

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Machinery Department.

The advertisements which appear in this department are those of Manufacturers, and they all will send catalogue and full information upon application It is requested that all inquirers mention the fact that the name was taken from the MACHINERY DEPARTMENT of this publication. If any of our readers are contemplating the purchase of machinery we will be pleased to place them in direct communication with the manufacturers.

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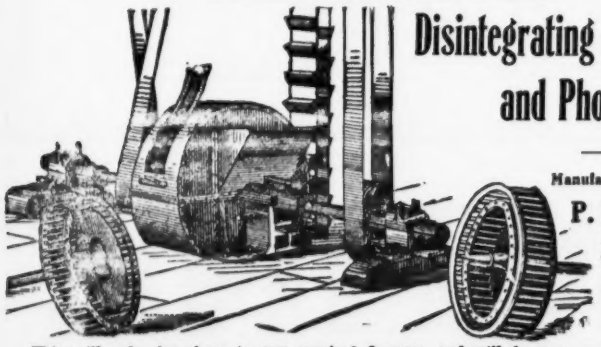

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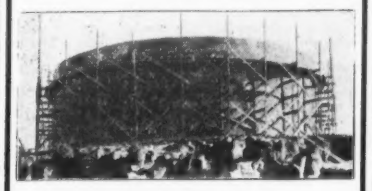

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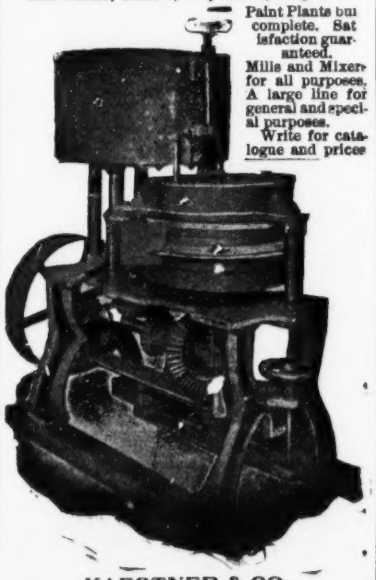

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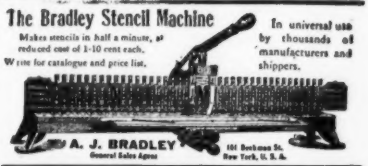

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The Production of Codliver Oil.

The yearly consumption of steam-refined oil is steadily increasing, according to advices received from competent authority, whereas the consumption of crude oil shows a proportionate decrease. This difference amounts to about 10,000 hectoliters. It seems that many countries prefer the steam-refined product, which process was first invented by Peter Moller of Norway. The gain in steam-refined oil is proved by the large exports from Norway. The following table gives the production for the past eight years and may be of interest:—

	Steam refined, hecto-liters.	Crude, hecto-liters.	Total, hecto-liters.
1906	43,000	8,000	51,000
1905	42,000	8,000	50,000
1904	21,000	5,000	26,000
1903	3,000	3,000	6,000
1902	23,000	6,000	29,000
1901	35,000	17,000	52,000
1900	33,000	17,000	50,000
1899	36,000	19,000	55,000

Sound Advice.

A unique desk blotter has been issued by Harry Louderbough, proprietor of the New Jersey Paint Works. The reverse side is intended to serve as a steady reminder to young business men. Upon it is printed some potent advice which reads:—

"Have a purpose in life, resolve that anything you are called upon to do you will do with your best energy and tact. Do not watch the clock except in the morning to satisfy yourself that you are on time. After that let the clock take care of itself. Employers do not care to keep in their employ those who are watching the clock that they may not work beyond the regular time for quitting. If your duties compel you to work overtime, don't you think time so employed is a good investment? The fellow who is first on the job and the last to leave will either have an interest in the business he is serving or, some time in life, be in business for himself.

"If you are in business for yourself don't let trifles worry you. Many of the anticipated troubles in life we never have to meet if we work on proper business lines. Buy goods from reliable concerns, affix thereto a fair profit and see that your expense account does not run away with too much of your profits, then you will have little to fear from the merchant who handles poor goods and thinks, by cutting prices, he will win out."

Besides his special interest in Marine paints, Mr. Louderbough is prominently connected with large financial concerns in New Jersey, among them the Lincoln Trust Company, of which he is president.

(Special to Oil, Paint and Drug Reporter.)

Chicago Seed and Oil Market.

Chicago, April 24, 1907.

The seed market has been somewhat unsettled during the week, but at the close to-day prices were little different from those at the close of the market a week ago. The conditions in the trade now are such that irregularity, has become regularity, the thing that the traders look for. The demand for seed from the crushers has been good, and buying has been more or less active all the week in spite of the fact that the receipts at the two principal markets of the northwest, have been decidedly liberal. The continued liberal run of seed to the markets has not been much of a surprise to the trade, though there are some cases where it has shaken the confidence of those who have been predicting higher prices. The very fact, however, that the price does not recede, in the face of the increased supplies, is taken by most of the trade as proof of the fact that the market is in good condition. Whether the price goes up or down, there are not many to be found in the trade now who will venture the prediction that there will be any great surplus of seed at the close of the present season to carry into the next crop. Already some seed has left Duluth, and it will be only a matter of a few days when the straits will be clear of ice, and the summer movement of seed to the east, and down the lakes will begin. How long the seed that is now in store in Duluth will remain there after this movement sets in is mere conjecture, but it is safe to say that the great bulk of it will be shipped out within a short time. The foreign situation, so far as it has actual bearing on the domestic trade, is not changed. There are bids for seed from the foreign buyers but Duluth reports that they are out of line with the prices which the domestic buyers are paying. Argentine shipments continue to be heavy, and so long as they are liberal it may well be doubted if there will be any demand from the foreigners for American seed, save in a very small way. But there is one thing which gives the trade here some encouragement, and which springs from conditions on the other side of the water. It is reported that there has been a better demand for cake this week than there had been prior to this week, for a considerable period of time. Foreign users of cake have been making more urgent demands for the stuff. Within the last few weeks there have been inquiries not only for spot and summer shipment cake, but for cake on the new crop seed, and with this demand enlarging it looks as though there was some indication that the supplies of the cake produced in Europe was not going to be so heavy as was at first reported. If this is the case, and there is the good demand for oil abroad that is now reported it would not be surprising if the foreign crushers found it necessary to secure some American seed. This much can be said of the seed market at the present time. Shipments from the Argentine have been the salvation of the European crushers. If the exports from that country to Europe had not exceeded the estimates, by many thousands of tons, it is reasonable to believe that the price of seed would have been so high that those crushers would have been compelled to rush into the American market as they did a year ago. The talk of the heavy arrivals of Argentine seed depressing the market on the other side of the water, is not therefore correct, except in a comparative way. The better way to put it, it would seem, would be to say that the presence of so much Argentine seed had the effect of preventing the European seed market from advancing to remarkably high prices. Considering the amount of seed that the European crushers have absorbed, since the movement from South America began, the fact that prices have held up as they have, is a remarkable testimonial to the strength of the trade. And when it is considered that, in spite of these heavy arrivals, the foreign crusher is already knocking at the door of the American seller, and is now within about 1c. of the price at which the seed is selling in this country, there does not appear to be any reason why the trade should be pessimistic as to future prices.

Daily carlot receipts at Chicago, week ending April 24, 1907, and for the same time last year:—

	This week.	Year ago.
Thursday	1	2
Friday	—	—
Saturday	1	—
Monday	—	12
Tuesday	2	14
Wednesday	—	—
	4	28

Daily carlot receipts at Minneapolis and Duluth, week ending April 24, 1907, and for the same time last year:—

	Minneapolis. This week.	Minneapolis. Year ago.	Duluth. This week.	Duluth. Year ago.
Thursday	30	23	62	42
Friday	28	37	36	35
Saturday	52	35	59	13
Monday	56	75	67	27
Tuesday	17	22	104	105
Wednesday	27	15	62	42
	210	207	390	264

Daily shipments of seed from the three principal markets for week ending April 24, 1907:—

	Chicago.	Minneapolis.	Duluth.
Thursday	....	21,000	.....
Friday	....	.....	6,000
Saturday	....	8,400	90,889
Monday	....	10,500	.....
Tuesday	....	63,000	.....
Wednesday	....	35,700	.....
	....	138,600	96,889

Daily closing prices of seed at Chicago, week ending April 24, 1907:—

	No. 1, N. W.	S. W.
Thursday	1.18	1.11
Friday	1.18	1.11
Saturday	1.18½	1.11½
Monday	1.18½	1.11½
Tuesday	1.18½	1.11½
Wednesday	1.18½	1.11½

Daily closing prices of seed at Minneapolis, week ending April 24, 1907:—

	Cash.	Arrive.
Thursday	1.15⅝	1.16⅝
Friday	1.16⅛	1.16½
Saturday	1.15⅞	1.15⅞
Monday	1.16	1.16
Tuesday	1.15⅞	1.15⅞
Wednesday	1.16¼	1.16¼

Daily closing prices of seed at Duluth, week ending April 24, 1907:—

	Cash.	May.	July.	Oct.
Thursday	1.16¾	1.17⅜	1.18¾	1.18½
Friday	1.16¾	1.16¾	1.18½	1.18½
Saturday	1.17⅛	1.17⅛	1.19	1.19
Monday	1.17⅛	1.17⅛	1.19	1.19½
Tuesday	1.17⅛	1.17⅛	1.19¼	1.19¼
Wednesday	1.17½	1.17½	1.19½	1.19¾

The following shows the stocks of seed in public store at the principal markets on the dates named below:—

	Sat., Apr. 20, 1907.	Sat., Apr. 13, 1907.	Sat., Apr. 21, 1906.
Duluth	4,125,000	3,765,000	4,058,000
Minneapolis	430,000	450,000	2,120,000
	4,555,000	4,215,000	6,178,000

The following shows the number of cars received at the principal markets for the crop year, to date, with comparisons for the two previous years:—

1907	21,973
1906	24,054
1905	20,071

LINSEED OIL.—Oil seems to have firmed up a trifle during the week, and the price is strong. While the sellers were ready to make contracts and to sell oil last week at 37c., they are not disposed to do this this week, and the schedule is really 38c., though it is not unlikely that a little oil could be bought at 37c. Chicago. It is noted that there has been a betterment in demand, not only in the spot stuff, but also in oil for future delivery, and the crushers seem to be especially wary on the proposition to sell for any great length of time ahead. A peculiar feature of the market, and which makes oil really stronger than appears by the quotations, is the fact that cake has struck an ascending scale, and is stronger to-day than it was last week. Cake and oil are generally used by the crushers to counterbalance each other. If cake is cheap, it is generally expected that oil will be high, and the reverse is also true. It is a little out of the ordinary therefore for cake and oil to improve their markets during the same week. But the active demand for seed has strengthened the crushers in the belief that there is going to be a continued high market for seed, and they will not sell below the price which can make them a margin of profit. At the same time it appears that the buyers are more willing to pay the strong price asked for oil, and so in spite of the fact that crushers are able to work cake more readily for export than they did a short time ago, they are still able to secure good prices for their oil. The spring has been very backward, but there are now signs that it has arrived, and painting operations are being carried on freely. This naturally makes a better demand for oil, not only in liberal sized lots, but also in smaller quantities for the country users. The quotable price for oil in the Chicago market is 38c.

LINSEED CAKE.—The demand for cake has taken on an improved tone, and sellers are able once more to interest buyers on the other side of the water, in their wares. Brokers here report that they are receiving bids every day for cake, and that the buyer and the seller are very close together. The demand from the other side seems to be stronger for the new crop futures than for cake on the old crop, but the crushers are not as freely disposed to offer the former as they are the latter. In fact, while the foreign buyers are making vigorous inquiries for September to December shipment, there is very little to be had, notwithstanding the fact that the buyers express a willingness to pay as much for the cake as for the nearby stuff. The quotable price for May-July shipments is $24.00@24.50 per ton, while the same price in being offered by foreign buyers for the new crop seed cake.

Steel Paint Pots

There are two kinds of paint pots—Steel Paint Pots and the "other kind." There are also two kinds of painters—"up-to-date" and the "other kind."

Steel Paint Pots are steel lead kegs minus the lead, and are much more substantial and therefore render a far more satisfactory service than the "other kind."

To the "up-to-date" painter the advantages of a steel, friction-cover, paint pot are at once apparent There are four sizes. The three smaller sizes have strong handles, the largest size has no handle but is excellent for mixing.

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American Can Company

New York Chicago San Francisco

CORN OIL.—Prices are the same as they were at the close last week, but the market is still inclined to weakness, and demand has not the urgency that it had a short time ago. Makers are limiting their manufacture of oil owing to the slightly less active demand. The Chicago market is $5 per hundred, Chicago.

LARD.—Late transactions in lard show price declines. Provisions have been lowered throughout the entire list, the recessions being due to the more liberal supplies of hogs at all of the western markets. Hog values have been cut down from 5@10c. nearly every day this week, and naturally bulls in the provision trade have not been in any position to force advances. Foreign demand for lard is only fair, as there is a fairly liberal supply on the other side. May lard closed to-day, $8.57½. July is actively traded in, closing $8.70 bid.

STEARINES.—Market easy; prices follow:—Prime oleo, 9c. noml.; Missouri River, 9c. noml.; New York, 9c. noml.; No. 2, 8½c. noml.; mutton, 8¾@9c.; lard, 10¼@11c.; tallow, 6⅛@6⅜c.; yellow grease, 6@6¼c.

OILS.—Market steady; demand is fair at the following levels of prices:—Extra oleo, 9¾@9⅞c.; No. 2 oleo, 9⅝@9¾c.; yellows, 10@10½c.; stock, 8¾@9⅛c.; cables, 58@59c.; bleachable, 42@43c.; soap grades, 38@39c.; soapstock, 1@1¼c.

TALLOWS.—Market slightly better on foreign improvement; prices:—Choice edible, 6¾@7c.; semi, 6¼@6½c.; prime packers', 6¼@6⅜c.; prime city, 6¼@6⅜c.; prime country, 6⅛@6¼c.; No. 1 packers', 5¾@6c.; No. 1 renderers', 5⅞@6c. noml.; No. 1

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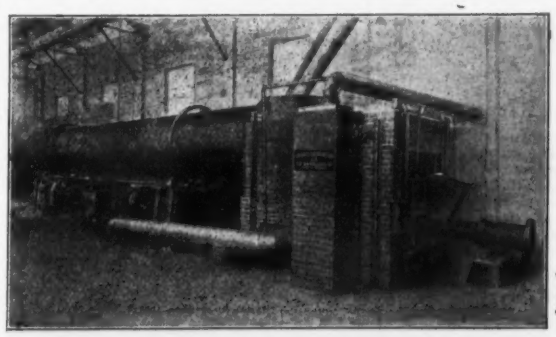

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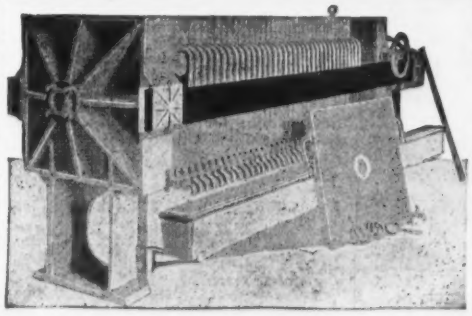

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country, 5¾@6c.; "B" tallow, 5⅝@5¾c.; No. 2 tallow, 5¼@5½c.

GREASES.—Market steady; better inquiry; prices:—Choice white, 5¾@6c.; "A" white, 5½@5⅝c.; "B" white, 5¼@5½c.; choice yellow, 5¼@5¼c.; ordinary yellow, 5@5¼c.; house, 5@5¼c.; bone, 5¼@5¾c.; glue, 5@5¼c.; neatsfoot, 5@5¼c.; brown, 4¾@5c.

(Special to Oil, Paint and Drug Reporter.)

Charleston Fertilizer Market.

The demand for fertilizers continues to be good and seasonable sales have been made. Great delay has been occasioned by the lack of transportation, and the scarcity of cars has militated against the fertilizer industry in this city. There is but one change to report in the price of fertilizer materials and very few sales have been effected.

AMMONIATED FERTILIZERS.—The quotation is $19.25 per ton cash, f. o. b., at Charleston, for 10 available, 2 ammonia and 2 potash.

NITRATE OF SODA.—The market for this article continues to be decidedly strong. The quotation is $2.50 per 100 lbs. for March and April shipments. The price for spot niter in the hands of dealers is $60 per ton of 2,000 lbs.

DOUBLE MANURE SALT.—There is not anything new to report in the condition of this article. The price delivered at Charleston, basis 48 per cent., is $1.16 per 100 lbs.

KAINIT.—The syndicate prices for this article have not undergone a change. The quotation is basis 23 per cent. of potash, $8.50 per ton. A great deal of independent potashes are being sold. It is the opinion of many that the German syndicate is on the verge of disintegration.

DRIED BLOOD.—The demand for this article is light and there has been a decline in price. The quotation is $3.22½.

LOW-GRADE TANKAGE.—There is very little doing in this material. Quotations are omitted.

MURIATE OF POTASH.—This commodity continues to be without change. The prevailing quotation is, delivered at Charleston, basis 80 per cent., $1.90 per 100 lbs., c. i. f.

ACID PHOSPHATE.—The market is strong. For limited quantities the quotation is $9.50.

PYRITES.—This article continues to be in active demand. The supply is reported to be scarce. Some of the representatives of producers in this country are not offering to sell any pyrites for the year 1907. The quotation for 1909 is 13¼c. per unit. The steamship Petunia left Pomaron with cargo March. The steamship Buckminster arrived with a cargo from Huelva.

PHOSPHATE ROCK.—There continues to be a great scarcity of phosphate rock, and quotations are omitted. Labor conditions and bad weather are causes of scarcity.

(Special to Oil, Paint and Drug Reporter.)

Chicago Fertilizer Market.

Chicago, April 25, 1907.

Demand for fertilizer materials has slackened considerably during the past week, and prices are slightly easier. There is a falling off in the inquiry on the part of the Southern mixers, though Eastern and Southeastern points are taking a little stuff. Packers are in position to hold their values up, if they see fit, as the production has not been very heavy this season.

DRIED BLOOD.—Trade is rather quiet. Demand is tame after the earlier activity of the season. There is a fair supply of materials on hand, but not enough to suggest an overloading of the market, even during the dull season. The price for blood in the local market is about $2.80, Chicago basis.

TANKAGE.—There is little trading in the various grades of stuff, though deliveries on old contracts are fairly good. There is little low-grade stuff to offer, but even on the basis of supplies on hand, the market is far from being firm. High-grade sorts are slightly better sellers. The general range of prices is as follows:—Twelve and 12, $2.70 and 10; 11 and 15, $2.67½ and 10; 10 and 20, $2.65 and 10; 9 and 20 crushed, $2.50 and 10.

HOOF MEAL.—Offerings still light, demand tame and the market only a nominal one at $2.60, Chicago.

BONE MEAL.—A little 3 and 50 grade is now on the market, but aside from this the market is almost bare. Quotations are $17 per ton, Chicago buyers' bags.

CONCENTRATED SHEEP MANURE.—Offerings of this material for nearby shipment, is very light, and the market is strong. Nothing is to be had on new business before the middle of May. The quotable price is $7.25 Chicago.

Imports and Exports.

Below we give a summary statement of the imports and exports of the United States for seven months, ended January 31, 1907, compiled by the Department of Commerce and Labor at Washington. We also give the same information for the corresponding period of last year for comparison:—

Imports.

	1906.	1907.
Alizarine and alizarine colors, lbs.	2,183,665	2,291,207
Ammonia, sulphate of, lbs.	.....	38,558,600
Aniline salts, lbs.	.....	4,265,371
Argols or crude tartar, lbs.	16,265,471	16,482,428
Asphaltum or bitumen, crude, tons	40,059	62,245
Bark, hemlock, cords	4,746	4,392
Bark, cinchona or other quinine, lbs.	2,009,871	2,832,986
Bristles, lbs.	1,842,488	2,414,062
Cement, lbs.	215,472,219	744,183,111
Clay of all kinds, tons	138,990	151,160
Coal tar colors & dyes	$3,152,350	$3,122,794
Cocoa, crude, etc., lbs.	46,887,580	53,218,923
Corkwood or cork barks, unmfd	$1,004,789	$1,042,155
Corks, mfrs. of	$824,234	$872,387
Dyewoods, extracts of, lbs.	1,952,591	2,702,649
Gambier	18,185,620	20,469,930
Glass, bottles, etc., empty and filled	$435,081	$367,017
Glass, cylinder, crown, etc., unpolished, lbs.	$8,520,279	$17,325,276
Glass, cylinder and crown, polished, unsilvered, sq. ft.	678,742	784,123
Glass, cylinder and crown, polished, silvered, sq. ft.	2,481	354
Glass, plate, fluted, rolled or rough, sq.ft.	163,094	652,390
Glass, plate, cast, polished, unsilvered, sq. ft.	3,434,086	3,731,406
Glass, plate, cast, polished, silvered, sq. ft.	15,005	9,828
Glass, all other	$2,206,719	$2,308,142
Glue, lbs.	3,850,215	3,574,390
Glycerine, lbs.	18,991,833	18,522,898
Grease and oils	$57,075	$619,027
Grease	$174,800	$154,777
Guano, tons	13,627	17,950
Gum, arabic, lbs.	2,031,357	4,370,440
Gum camphor, crude, lbs.	824,614	1,376,231
Gum chicle, lbs.	2,863,370	3,102,759
Gum copal and kauri, lbs.	11,840,898	15,703,806
Hops, lbs.	7,012,513	3,111,484
Indigo, lbs.	.....	324,682
Iodine, crude, lbs.	62,150,118	46,766,751
Lead in ore, lbs.	101,494,465	76,682,301
Lead, pigs, bars, etc., lbs.	9,053,984	10,317,368
Licorice root, lbs.	62,150,118	46,766,751
Lime, chloride of, or bleaching powd., lbs.	64,124,612	60,719,822
Linseed or flaxseed, bu.	22,235	50,794
Logwood, tons	23,317	27,097
Other dyewoods	$69,984	$24,797
Mineral waters, dz.qts.	725,917	738,380
Nutmegs, lbs.	18,221,805	1,092,852
*Oil, cocoanut, lbs.	.....	22,453,978
Oil, whale and fish, gls.	726,472	773,361
Oil, other animal, gals.	90,896	48,024
Oil, mineral, gals.	9,777,067	13,224,357
Oil, olive, gals.	1,222,238	630,169
Oil, palm, lbs.	.....	16,145,876
Oils, volatile or essen.	$1,555,124	$2,013,168
Opium, crude, lbs.	309,760	319,715
Opium, prepared, lbs.	92,060	98,466
Paints and colors	$935,824	$1,109,228
Pepper, lbs.	16,831,227	14,037,444
Perfum'y,cosmetics,etc.	$657,208	$801,625
Phosphate, crude, tons.	659,864	61,642
Other fertilizers	$3,056,345	$3,295,254
Plumbago, tons	476,789	601,718
Potash, muriate of, lbs.	152,889,354	176,812,045
Potash, nitrate of, or saltpeter, crude, lbs.	5,203,283	4,116,087
Potash, all other, lbs.	50,730,191	66,875,742
Quinine, all sorts of ozs	1,869,245	3,220,222
Shellac, lbs.	7,983,670	8,990,666
Soap, fancy, perfumed, and all toilet, lbs.	663,274	699,486
Soap, all other	$236,964	$279,813
Soda, ash, lbs.	6,794,277	3,981,471
Soda, nitrate of, tons	216,725	207,830
Soda, other salts of,lbs.	9,955,343	9,801,717
Spirits, proof gals.	92,343	86,917
Sponges	$342,528	$228,951
Sulphur or brimstone, crude, tons	50,935	29,133
Sumac, ground, lbs.	7,793,321	6,859,902
Vanilla beans, lbs.	474,629	436,779
Wax, vegetable or mineral, lbs.	6,279,181	4,049,820

* Included in all other fixed or pressed oils free prior to July 1, 1906.

Exports of Domestic Merchandise.

	1905.	1906.
Acids	$179,355	$195,129
Acetate of lime, lbs.	44,843,480	48,437,171
Alcohol, wood, gals.	413,915	873,323
Alcohol, all other, proof gals.	25,898	12,097
Ashes, pot and pearl lbs.	532,953	654,963
Baking powder	857,979	867,561
Bark and extract for tanning	$244,727	$177,882
Beeswax, lbs.	60,793	69,089
Candles, lbs.	3,922,393	2,789,701
Cement, lbs.	582,167	371,679
Copper, sulph. of, lbs.	4,907,645	2,041,870
Corks, mfrs. of	$35,236	$53,270
Cottonseed, lbs.	16,208,811	11,128,131
Dyes and dyestuffs	$278,235	$299,806
Flaxseed, bu.	1,808,253	5,296,257
Ginseng, lbs.	109,409	51,833
Glass, window	$43,457	$43,368
Glass, all other	$1,300,351	$1,426,874
Glucose or grape sugar, lbs.	99,414,346	80,734,507
Glue, lbs.	1,814,873	1,941,942
Grease and all soap stock	$2,452,191	$2,635,864
Gunpowder, lbs.	412,769	295,840
Hops, lbs.	6,568,091	11,613,673
Lampblack	$381,086	$266,610
Lard, lbs.	38,600,298	45,572,715
Lead, pigs, bars, etc., lbs.	72,281	114,756
Lime, bbls.	73,482	86,208
Matches	$45,151	$47,910
Medicines, patent or proprietary	$2,834,430	$3,183,693
Naphthas, including all lighter products, gls.	18,808,299	9,738,743
Oil cake, corn, lbs.	28,754,443	36,269,172
Oil cake, cottonseed, lbs.	753,098,568	780,827,267
Oil, cake, linseed, lbs.	411,658,982	389,835,895
Oil, corn, gals.	2,059,046	1,735,436
Oil, cottonseed, gals.	27,299,511	22,833,132
Oil, fish, gals.	500,460	679,690
Oil, illuminating, gals.	526,498,008	535,210,409
Oil, lard, gals.	205,666	149,202
Oil, linseed, gals.	140,481	313,683
Oil, lubricating, gals.	81,443,547	79,077,812
Oil, mineral, cde., gals.	77,859,832	84,089,930
Oil, mineral, residuum, gals.	46,640,609	37,536,436
Oil, peppermint, lbs.	45,600	90,572
Oil, other essential	$270,574	$171,808
Oil, other vegetable	$133,950	$181,031
Oil, other animal, gals.	156,427	293,846
Oil, whale	7,959	5,775
Oleo oil, lbs.	115,584,664	106,896,730
Oleomargarine, lbs.	6,392,260	3,786,706
Paints and colors	$2,142,913	$2,254,099
Paraffine wax, lbs.	102,831,424	101,728,031
Perfumery & cosmetics	$296,176	$351,287
Phosphate, crude, tons.	548,796	475,188
Other fertilizers	15,004	22,706
Quicksilver, lbs.	478,681	306,440
Rosin, bbls.	1,601,543	1,638,725
Roots, herbs and barks, n. e. s.	$218,117	$290,868
Soap, toilet or fancy	$626,784	$672,008
Soap, all other, lbs.	24,597,147	32,245,907
Spermaceti, lbs.	48,682	97,180
Spirits turpentine, gls.	10,714,983	11,080,715
Starch, lbs.	39,766,128	25,949,553
Sulphur or brimstone, crude, tons	.....	14,552
Tallow, lbs.	60,465,594	72,052,315
Tar, bbls.	8,513	8,613
Turpentine and pitch, bbls.	8,503	9,938
Varnish, gals.	456,254	569,339
Washing powder, lbs.	5,867,131	4,756,374
Whalebone, lbs.	56,118	54,842
Zinc, oxide of, lbs.	16,500,955	15,813,844
Zinc, in pigs, lbs.	10,260,917	4,415,905

Below we give a summary statement of the imports and exports of the United States for eight months, ended February 28, 1907, compiled by the Department of Commerce and Labor at Washington. We also give the same information for the corresponding period of last year for comparison:—

Imports.

	1906.	1907.
Alizarine and alizarine colors, lbs.	3,278,704	2,497,522
Ammonia, sulphate of, lbs.	.....	42,668,000
Aniline salts, lbs.	.....	4,905,685
Argols or crude tartar, lbs.	18,204,589	18,503,445
Asphaltum or bitumen, crude, tons	5,099	4,692
Bark, hemlock, cords	353	300
Bark, cinchona or other quinine, lbs.	2,541,020	3,107,368
Bristles, lbs.	2,020,964	2,671,562
Cement, lbs.	237,648,987	867,104,352
Clay of all kinds, tons	151,206	174,865
Coal tar colors & dyes	$3,848,770	$3,503,437
Cocoa, crude, etc., lbs.	56,602,728	61,299,427
Corkwood or cork barks, unmfd	$1,137,305	$1,254,621
Corks, mfs. of	$985,634	$988,923
Dyewoods, extracts of, lbs.	2,290,159	2,980,804
Gambier	20,434,513	21,355,591
Glass, bottles, etc., empty and filled	$490,260	$638,218
Glass, cylinder, crown, etc., unpolished, lbs.	20,827,161	18,847,226
Glass, cylinder and crown, polished, unsilvered, sq. ft.	773,003	876,694
Glass, cylinder and crown, polished, silvered, sq. ft.	2,481	354
Glass, plate, fluted, rolled or rough, sq.ft.	206,611	723,789
Glass, plate, cast, polished, unsilvered, sq. ft.	3,830,120	4,265,911
Glass, plate, cast, polished, silvered, sq. ft.	15,258	9,927
Glass, all other	$2,288,810	$2,422,030
Glue, lbs.	4,401,581	4,093,869
Glycerine, lbs.	21,407,552	21,459,554
Grease and oils	$652,562	$688,325
Grease	$186,960	$176,666
Guano, tons	13,668	18,393
Gum, arabic, lbs.	2,211,434	4,720,279
Gum camphor, crude, lbs.	1,068,554	1,580,527
Gum chicle, lbs.	3,250,899	3,902,938
Gum copal and kauri, lbs.	12,682,441	17,188,583
Hops, lbs.	9,020,939	4,942,521
Indigo, lbs.	5,603,536	4,380,517
Iodine, crude, lbs.	.....	360,573
Lead in ore, lbs.	115,331,255	83,890,040
Lead, pigs, bars, etc., lbs.	10,307,598	13,801,573
Licorice root, lbs.	78,629,483	52,600,976
Lime, chloride of, or bleaching, powd., lbs.	73,498,043	70,289,032
Linseed or flaxseed, bu.	26,250	50,811
Logwood, tons	25,813	28,092
Other dyewoods	$80,511	$25,349
Mineral waters, dz.qts.	744,276	74,845
Nutmegs, lbs.	1,985,278	1,211,472
*Oil, cocoanut, lbs.	.....	25,769,505
Oil, whale and fish, gls.	772,618	862,042
Oil, other animal, gals.	95,447	68,483
Oil, mineral, gals.	10,123,854	17,544,684
Oil, olive, gals.	1,400,243	669,124
Oil, palm, lbs.	.....	18,560,729
Oils, volatile or essen.	$1,824,610	$2,403,675
Opium, crude, lbs.	350,638	347,839
Opium, prepared, lbs.	92,465	130,153
Paints and colors	$1,075,500	$1,245,118
Pepper, lbs.	18,175,823	15,212,760
Perfum'y,cosmetics,etc.	$730,491	$872,676
Phosphate, crude, tons.	12,744	15,598
Other fertilizers	$3,231,954	$3,615,199
Plumbago, tons	706,583	977,658
Potash, muriate of, lbs.	160,830,096	186,054,626
Potash, nitrate of, or saltpeter, crude, lbs.	6,361,633	5,150,312
Potash, all other, lbs.	55,049,547	55,144,350
Quinine,all sorts of,ozs.	2,317,316	3,633,148
Shellac, lbs.	9,581,321	10,271,558
Soap, fancy, perfumed, and all toilet, lbs.	741,314	777,125
Soap, all other	$264,289	$310,033
Soda, ash, lbs.	7,244,478	4,452,124
Soda, nitrate of, tons	248,956	228,699
Soda, other salts of, lbs.	11,209,075	11,432,474
Spirits, proof gals.	2,202,867	2,613,960
Sponges	$378,017	$264,721
Sulphur or brimstone, crude, tons	63,274	37,984
Sumac, ground, lbs.	9,118,866	7,579,827
Vanilla beans, lbs.	499,083	486,517
Wax, vegetable or mineral, lbs.	.....	5,549,739

* Included in all other fixed or pressed oils free prior to July 1, 1906.

Exports of Domestic Merchandise.

	1906.	1907.
Acids	$209,117	$235,651
Acetate of lime, lbs.	51,507,459	57,880,197
Alcohol, wood, proof gals.	507,551	1,091,034
Alcohol, all other, proof gals.	918,354	1,081,583
Ashes, pot and pearl lbs.	589,995	730,954
Baking powder	1,031,055	1,070,025
Bark and extract for tanning	$267,242	$199,470
Beeswax, lbs.	64,252	83,822
Candles, lbs.	5,027,942	3,189,375
Cement, lbs.	608,154	432,527
Copper, sulhp. of, lbs.	8,242,996	3,888,935
Corks, mfrs. of	$46,232	$58,694
Cottonseed, lbs.	20,305,842	14,357,503
Dyes and dyestuffs	$311,904	$334,852
Flaxseed, bu.	1,852,375	5,323,974
Ginseng, lbs.	133,076	65,432
Glass, window	$45,987	$48,375
Glass, all other	$1,485,737	$1,605,876
Glucose or grape sugar, lbs.	116,022,401	94,949,152
Glue, lbs.	2,044,690	2,343,582
Grease and all soap stock	$2,715,902	$3,081,626
Gunpowder, lbs.	473,846	322,958
Hops, lbs.	7,578,055	13,577,373
Lampblack	$437,058	$303,275
Lard, lbs.	520,635,791	436,834,739
Lead, pigs, bars, etc., lbs.	72,281	154,035
Lime, bbls.	81,790	91,202
Matches	$47,048	$50,574
Medicines, patent or propretary	$3,226,962	$3,610,830
Naphthas, including all lighter products, gals.	19,897,207	11,943,567
Oil cake, corn, lbs.	33,004,388	39,354,580
Oil cake, cottonseed, lbs.	856,978,779	917,642,783
Oil, cake, linseed, lbs.	490,301,381	455,768,273
Oil, corn, gals.	2,541,176	1,892,736
Oil, cottonseed, gals.	31,199,590	28,155,629
Oil, fish, gals.	603,632	752,482
Oil, illuminating, gals.	575,383,305	612,753,068
Oil, lard, gals.	224,028	163,021
Oil, linseed, gals.	157,895	331,996
Oil, lubricating, gals.	95,581,451	90,076,039
Oil, mineral, cde., gals.	91,805,983	93,344,659
Oil, mineral, residuum, gals.	52,001,657	40,451,509
Oil, peppermint, lbs.	54,479	100,746
Oil, other essential	$303,353	$191,987
Oil, other vegetable	$145,533	$231,795
Oil, other animal, gals.	198,780	331,432
Oil, whale	603,632	752,482
Oleo, oil, lbs.	131,328,024	121,807,450
Oleomargarine, lbs.	7,199,224	4,141,661
Paints and colors	$2,500,959	$2,559,689
Paraffine wax, lbs.	119,043,308	119,789,946
Perfumery & cosmetics	$332,539	$393,583
Phosphate, crude, tons.	624,262	526,046
Other fertilizers	17,112	24,468
Quicksilver, lbs.	562,078	353,470
Rosin, bbls.	1,787,493	1,807,450
Roots, herbs and barks, n. e. s.	$244,144	$311,591
Soap, toilet or fancy	$688,911	$164,476
Soap, all other, lbs.	28,293,436	36,224,539
Spermaceti, lbs.	16,416	30,472
Spirits turpentine, gls.	14,829,418	15,563,108
Starch, lbs.	44,648,364	28,813,429
Sulphur or brimstone, crude, tons	.....	15,789
Tallow, lbs.	66,258,530	81,008,504
Tar, bbls.	11,427	10,645
Turpentine and pitch, bbls.	10,128	11,071
Varnish, gals.	528,753	623,610
Washing powder, lbs.	6,682,241	5,371,978
Whalebone, lbs.	65,991	60,128
Zinc, oxide of, lbs.	19,967,986	17,128,485
Zinc, in pigs, lbs.	10,900,641	4,690,083

Suit Against Standard in Manila.

AUCTION TO BE TAKEN BY COLLECTOR OF THE PORT TO RECOVER UNPAID DUTIES.

The Collector of Customs at Manila has requested the Attorney General of the Insular Government, to bring suit against the Standard Oil Company for the recovery of $19,216 gold for unpaid duty on 30,000 cases of oil imported in 1901. The oil, according to report, was entered for Government use, but a large portion was afterwards sold in the open market. In the meantime new tariff schedules had been adopted. Duty was paid on the oil that was sold under the new tariff, which was considerably less than the old tariff. The customs authorities demanded the difference between the old and the new tariff. It was referred to the New York officials of the Standard Oil Company, but payment was refused. The Attorney General has now been instructed to bring suit.

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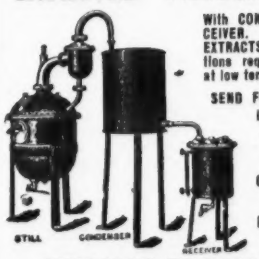

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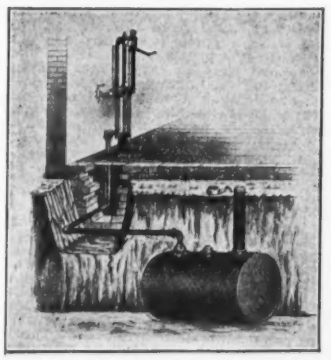

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PETROLEUM MARKET.

Saturday Noon, April 27, 1907.

There has been a heavy decline in the production, and operators in the central fields made heavy losses. The decrease in the production of crude oil is confined to the petroleum fields east of the Mississippi, Illinois, West Virginia, Ohio and Indiana. The decline is attributed to the past bad weather and the lack of promising territory. Prices for all crude oils showed firmness and Ragland grade at the well was advanced 8c. to 70c. per bbl. The Congo field in Hancock county shows continued activity in new operations and eclipses all districts in the older fileds. In the Illinois field has been active along the route of the new pipe line, and in the advent of continued good weather active operations are looked for. The few districts in the older fields, which have been presenting good producers since the opening of the year, are gradually fading away and fears are entertained that the end is rapidly approaching. The best results do not show anything better than average producers and dusters are on the increase. The Santa Barbara oil region in California gives promise of becoming one of the foremost productive oil fields in this country. The productiveness of the wells yield an average of 300 to 400 bbls. a day up to 3,000 bbls. a day The oil is light and averages from 25 to 27 degrees, Baune. Shipments of crude oil during March exceeded those for several months past, and aggregated about 700,000 bbls. The extent of oil deposits of California is great and in instances when the bulk of the various forms of petroleum is pumped from wells driven at various distances into the earth, some of the deposits reveal oil springs. In the mid-continent field for the first two weeks in April the pipe line runs totalled over 107,000 bbls. and the shipments 71,000 bbls. a day, which are unusually large figures. The runs from April 1 to 14 amounted to 1,506,858 and the deliveries 995,130 bbls., leaving 511,728 bbls. to go into tankage. This shows an increase in the stocks of over 1,000,000 bbls. Prospecting and leasing continued active. Reports from Texas, note that the development of the Piedras Pintas oil fields are progressing. An end has come to wildcatting, which was active in the vicinity of Pine Island bayou in Hardin county. In the Henrietta oil field there is a considerable stir and oil leases are running high. In the Batson oil field work is being hampered by strikes by workmen. The following prices are for Texas and Louisiana crude oils, as credit balances posted by pipe lines and are according to gravity:—Spindle Top, 85c.; Sour Lake, 82@85c.; Batson, 80@83c.; Saratoga, 78@83c.; Humble, 80@85c.; Jennings, 75c.; Shreveport, 75c.; Dayton, 75c.

Refined and Products.

The local market was firm on strong reports from the producing districts. The export demand for refined was good. There continued a steady demand from the home trade. The demand for refined for export was active, and sales in the local market amounted to a good volume. The price in New York market of barreled oil for export remained firm at $8.20 for New York loading and $8.15 for Philadelphia loading. The total engagements during the week in the local market amounted to over 210,000 barrels. The principal foreign market remained firm and the quotations to-day by cable were:—Antwerp, 21¼f.; London, 6¾@6⅞d., and Liverpool, 6⅜d. Freight rates remained firm at 2s. 1½d.@2s. 3d. hence to London and at 2s. 3d.@2s. 7½d. to Continental ports, as to port and vessel. The demand from home consumers for spot lots was fairly active and prices were firm on the basis of 10c. for 150 degree water white in bulk from tanks and 13½c. in bbls. and for fire test 300 degrees at 13¾@14c. Advices from abroad note no changes in the Russian petroleum market. At Baku the situation is improving and work on the oil fields is more active, maintaining the production. The strike by sailors on the Caspian Sea is still on, but indications point to a settlement in the near future. No charters to load case were reported for Batoum to the Far East. In the Grosnyi and Batoum oil fields the position remains unchanged.

Cases for export were fair in demand, and sales covered over 341,000 cases of refined. The price of plain tops closed unchanged at 10.65c. Freight rates were firm and unchanged.

Crude for export closed firm, but no sales were reported. Pennsylvania crude closed firm at 8.20c. in bbls.

Naphthas remained firm and sales for export of about 147 bbls. Spot jobbing lots of auto gasoline and V. M. & P. deod. closed firm at 17c. and 16c. per gallon, respectively.

Residuum was firm, with sales of 8,000 bbls. for export at 6@6⅛c.

(Special to Oil, Paint and Drug Reporter.)

English Market Report.

London, April 17, 1907.

The quotations for lamp oils on the London and Liverpool markets have remained unchanged during the past week. The deliveries have been fair, and the market is steady.

The quotations were as follows:—

London.—Russian oil, 5⅞d.@6d., ex-wharf in bbls.; American oil, 6¼d.@6⅝d., ex-wharf in bbls.

Liverpool.—Russian oil, 6¼d.@6½d., ex-wharf in bbls.; American oil, 6½d.@6⅝d., ex-wharf in bbls.

(Special to Oil, Paint and Drug Reporter.)

Russian Petroleum Market.

There has been very little change in the Baku petroleum market during the past week. The quotation for crude oil for prompt delivery remained firm and unchanged at 27½ copecks per pood, whilst for forward delivery the quotation fell ¼ copeck to 27¾ copecks per pood.

The quotation for residuals for prompt delivery was also unchanged, being firm at 28½ copecks per pood; and the quotation for delivery during the navigation of the Volga was also firm and unchanged at 29¼ copecks per pood.

There was a slight falling off in the demand for kerosene, and consequently the quotations have declined somewhat. For prompt delivery free on rail Baku the quotation was 33 copecks per pood, or a drop of ½ copeck per pood. For forward delivery sellers were disposed to accept lower rates, and the quotation fell 2 copecks per pood to 34 copecks free on rail Baku. Kerosene f. o. b. vessel for delivery to the interior of Russia by the Volga fell ½ copeck per pood, the quotation being 33 copecks per pood.

The position at Baku is much more satisfactory. Work on the oil fields is progressing well, the production being maintained; but the strike of sailors on the Caspian Sea still continues, although it is expected that this will shortly terminate.

There is a more settled feeling at present on the oil fields. No further steamers have been chartered to load case oil from Batoum to the Far Eastern ports, but Messrs. Mantacheff are loading a steamer for India which is expected to sail shortly.

There is no change in the position on the Grosnyi oil fields and at Batoum everything continues to be satisfactory. The stocks of kerosene and other products have somewhat increased, and the loading of vessels is carried on with good despatch.

(Special to Oil, Paint and Drug Reporter.)

Antwerp Chemical Market.

Antwerp, April 15, 1907.

Bleaching powder is unchanged at Frs. 10.75. Chlorate a shade lower, at Frs. 72@73.50. Sulphate of copper has been sold freely from Frs. 60.50@81. Sulphur is steady at Frs. 11.50. Potash, caustic and carbonate, continue scarce and prices for spot delivery are high. Prussiates are fairly steady at Frs. 98 and 141. Bichromates are without change. Borax stands

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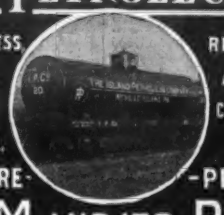

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Clearances of petroleum and its products from Batoum from March 26, to April 2, 1907:—

REFINED.

Steamer—Destination.	Blk. pds.	Tins.
Terek, London	324,014	....
Meteor, Odessa	219,891	....
Makkavel, Reni	104,814	....
J. B. Kessler, Alexandria	376,443	....
Sviet, Odessa	108,360	....
Borjom, Odessa	214,857	....
Turkish small smacks—		
Rizeh	....	500
Samsoun	....	1,300
Ineboli	....	3,800
Beyrouth	....	5,800
Totals	1,348,379	11,400

DISTILLATE.

Steamer—Destination.	Mach.
Venus, Varna	7
Venus, Jaffa	5
Borjom, Odessa	100
Totals	175

(Special to Oil, Paint and Drug Reporter.)

Indian Petroleum Market.

There has been no change in the prices of the different lamp oils on the Indian markets during the past week. There has been a further reduction in the deliveries, but the market is very firm.

The quotations were as follows:—

Bombay.—	Rupees.		
American case oil	4	8	0
Russian case oil	4	2	0
"Elephant" oil in tins	3	10	0
Sumatra "Rising Sun" in tins	3	10	0
Borneo oil in bulk	2	10	0
Burmah oil in bulk	2	12	0
Karachi.—	Rupees.		
American case oil	4	0	0
Burmah oil in tins	3	8	0
Borneo oil in tins	3	4	0
Sumatra oil in bulk	3	0	0
American oil in bulk	3	0	0
Calcutta.—	Rupees.		
American case oil	4	6	6
Russian case oil	4	5	0
Burham oil in bulk	2	13	0
Borneo oil in bulk	2	13	0
Sumatra oil in bulk	3	3	0
American oil in bulk	3	3	0

(Special to Oil, Paint and Drug Reporter.)

Prices Ruling at Shanghai and Yokohama.

Shanghai.—	Tls.
American case oil	1.80@1.85
Eastern oil in bulk	1.13@—
American oil in bulk	1.15@1.17
Yokohama.—	Yen.
American case oil	3.60
Russian case oil	No quotation
Bulk oil	2.09

Closing Quotations.

CRUDE.

Pennsylvania crude, in bulk	—	@4.75
Pennsylvania crude, in bbls	—	@8.20
Residuum, bbls., for export	6	@ 6½

CRUDE AT THE WELLS.

The following are the prices paid by the pipe lines for crude as delivered from the wells:—

	1907.	1906.
Tiona, ₱ bbl.	$1.78	$1.74
Pennsylvania	1.78	1.64
New Castle	1.23	1.41
Cabell	1.23	1.24
Corning	1.14	1.16
North Lima	.94	.98
South Lima	.89	.93
Indiana	.89	.93
Somerset	1.20	.93
Casey, Ill.	.68	—
Kansas and Ind. Ter., 32 deg. and above	.41	.54
Ragland	.70	.60
Canadian Oil:—		
Petrolia	1.34	1.37
Oil springs, less pipeage	1.41	1.44

REFINED—FOR EXPORT.

	S.W.	W.W.
Barrels, cargo, ₱ gal.	$8.20	@10.20
Philadelphia	8.15	@10.15
Bulk, New York	4.75	@ 6.75
Bulk, Philadelphia	4.70	@ 6.70
Cases, New York	10.65	@13.65
Cases, Philadelphia	10.60	@13.60

	10 gal. drums— Under 100 cases.	100 cases and over.	100 gal. *drums.
Naphtha—			
73@76 deg.	27	28½	18
Stove	23	22½	14
Benzine, 62 deg.	22	21½	13
Gasoline, 89 deg.	32½	32	21

*Drums extra $8.

	In cans and cases— Under 100.	100.	200.
Naphtha—			
73@76 deg.	22	21½	21½
Stove	18	17½	17½
Benzine, 62 deg.	17	16½	16½
Gasoline, 86 deg.	25	24½	24½

REFINED IN CASES—110 FIRE TEST.

Petroleum.

Two five, low-screw, cargo lots	10.65
3,000 to 10,000	10.80
1,000 to 3,000	10.85
700 to 1,000	10.95
400 to 700	12.05
300 to 400	11.15
200 to 300	11.25
100 to 200	12.15
Under 100	12.65

REFINED—JOBBING LOTS.

In barrels, pkgs., included.

120 fire test, S. W., ₱ gal.	—	@	12
130 fire test, S. W.	—	@	12½
150 fire test, W. W.	—	@	13¼
in bulk from tanks	—	@	10
300 fire test	13¼	@	14

Jobbing Lots.

Naphtha, Auto.	—	@	17
Naphtha, V. M. & P. deod.	—	@	16
Gasoline—86 deg.	—	@	24
Stove	—	@	17

Petroleum Statistics.

RUNS—TOTAL.

		Day.	Total Reported.
Friday,	Apr. 19	172,815	3,003,131
Sat.-Sun.,	" 20 & 21	290,802	3,293,933
Monday,	" 22	115,103	3,409,036
Tuesday,	" 23	96,424	3,505,460
Wednesday,	" 24	193,253	3,698,713
Thursday,	" 25	280,525	3,979,238

	1905.	1906.	1907.
January	4,064,670	3,559,168	2,856,177
February	3,566,980	3,108,449	2,655,130
March	4,437,820	3,478,432	2,911,685
April	4,002,200	3,390,789	.....
May	4,321,681	3,565,606	.....
June	4,174,474	3,424,840	.....
July	3,877,651	3,348,562	.....
August	3,980,105	3,426,717	.....
September	3,703,497	3,110,306	.....
October	3,654,662	3,286,040	.....
November	3,518,423	3,043,408	.....
December	3,686,270	2,999,369	.....
Year	46,988,533	39,750,721	5,511,307
Average	3,915,709	3,312,560	2,755,053

DELIVERIES—TOTAL.

		Day.	Total Reported.
Friday,	Apr. 19	141,986	9,206,390
Sat.-Sun.,	" 20 & 21	354,995	9,561,385
Monday,	" 22	209,049	9,770,434
Tuesday,	" 23	147,803	9,918,237
Wednesday,	" 24	167,721	10,085,958
Thursday,	" 25	148,867	10,234,725

	1905.	1906.	1907.
January	4,418,400	4,359,617	5,359,617
February	4,127,883	3,971,630	4,784,869
March	4,743,570	4,381,256	4,980,733
April	4,585,785	4,384,917	.....
May	4,612,423	4,347,834	.....
June	4,572,874	4,029,642	.....
July	4,341,782	4,297,676	.....
August	4,845,437	4,740,362	.....
September	4,361,458	4,506,448	.....
October	4,969,565	4,969,286	.....
November	4,479,626	4,960,028	.....
December	4,401,736	4,576,854	.....
Year	54,460,533	53,526,234	10,144,486
Average	4,538,378	4,460,519	5,072,243

CHARTERS—CRUDE EQUIVALENT.

		Day.	Total.	Av'ge.
Sat.-Sun.,	Apr. 20 & 21	56,794	873,668	41,603
Monday,	" 22	59,937	933,605	42,800
Tuesday,	" 23	53,334	986,939	42,910
Wedn'day,	" 24	66,667	1,053,606	39,725
Thursday,	" 25	30,160	1,083,766	43,350
Friday,	" 26	88,890	1,171,656	45,063

	1904.	1905.	1906.	1907.
Jan.	1,629,644	1,762,737	1,845,241	1,333,980
Feb.	1,299,086	2,570,438	2,143,220	1,108,336
March	1,853,900	2,308,545	2,069,317	1,332,452
April	2,528,100	2,367,977	2,305,957	.....
May	1,921,000	2,001,312	1,935,057	.....
June	1,706,779	2,579,424	2,132,398	.....
July	2,089,840	2,482,373	2,097,173	.....
Aug.	2,069,413	2,220,804	2,231,312	.....
Sept.	1,682,183	2,370,278	2,575,476	.....
Oct.	1,902,340	2,573,640	2,213,106	.....
Nov.	2,050,443	2,003,294	1,547,506	.....
Dec.	1,766,213	1,985,114	1,576,987	.....
Year	22,608,941	27,225,936	24,672,750	3,774,768
Average	1,814,078	2,268,828	2,056,062	1,258,256

CHARTERS FOR THE WEEK.

The total charters for refined, crude, naphtha, etc., in bulk, barrels and cases during the week ended April 26, and from Jan. 1, were as follows:—

	Week.	Year.	1906.
Refined, bbls. & blk.	402,760	4,712,020	3,674,700
Refined, cases	340,000	5,450,010	5,471,000
Crude, bbls. & blk.	66,080	309,070	545,300
Crude, cases	....	....	187,000
Naphtha, bbls.	1,180	17,110	160,000
Residuum, bbls.	11,000	155,350	288,600
Lubricating, bbls.	....	.....	112,200
Total, bbls. cde, eq.	355,782	9,170,580	8,252,171

CLEARANCES FOR THE WEEK

During the week ending April 26, and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows:—

	Week.	Year.	1906.
Refined	13,174,860	154,712,940	160,749,200
Crude	252,500	1,039,925	226,450
Naphtha	94,650	2,368,920	7,342,717
Residuum	150,000	306,087	.....

EXPORT STATISTICS.

The following table shows the total exports from the port of New York and from the United States, reduced to crude equivalent, in gallons for the week ending April 26, also total shipments to date, with comparisons with 1906:—

From N. Y., week ending April 26	17,566,480
Total from N. Y. since Jan. 1, '07	212,791,107
Same period last year	214,505,379

(Continued on page 40.)

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Determination of Indigotin in Commercial Indigo.*

BY CYRIL BERGTHEIL AND RICHARD VICTOR BRIGGS.

The determination of indigotin in commercial indigo is a matter of great importance to the dyeing trade, and many methods have been described for its accomplishment. An excellent summary and bibliography of the subject may be found in a paper by J. Grossmann. Recent criticism by Bloxam has thrown doubt on all the methods hitherto proposed, and it has become necessary, for the purpose of the research work now in progress in India on the cultivation and manufacture of indigo, to re-examine the whole question.

As summarized by Grossmann, the analytical methods hitherto proposed all fall under one of the following heads:—

I. The extraction of indigotin by solvents and weighing the extracted material after more or less purification.

II. Sulphonation of the indigo and volumetric determination of the indigotin by an oxidizing agent.

III. Sulphonation of the indigo, and volumetric determination of the indigotin by a reducing agent.

IV. Reduction of the indigo and separation of the indigotin by reoxidation.

V. Sublimation of the indigotin.

To these should be added a method proposed by Mohlau and Zimmermann, in which the indigo is acted upon by a mixture of acetic and sulphuric acids, whereby the indigotin is converted into a sulphate which remains dissolved in the acetic acid and is subsequently hydrolyzed by pouring the solution into water and the precipitated indigotin weighed as such.

Our experience has led us to agree with the opinions expressed by Grossman on the methods coming under headings I., IV. and V. In our attempts to obtain the impurities occurring in natural indigo free from indigotin, we had occasion to test the extractive action of all the solvents hitherto proposed and in no case were we able to entirely remove the indigotin from the material or to obtain the indigotin from the solvent direct in a pure condition. Analytical methods founded on this principle are therefore valueless. The same applies to methods coming under headings IV. and V. In neither case can the indigotin be obtained direct in a pure form. We have, therefore, confined our attention to methods depending on the oxidation or reduction of sulphonated indigos, and the acetic-sulphuric acid method of Mohlau and Zimmermann.

The Preparation of Pure Indigotin.—The fundamental objection raised by Bloxam to all the methods of indigotin estimation hitherto described is that there is no evidence that they have been founded upon application of the methods to pure indigotin as a standard, a fact which he suggests has been due to the difficulty of obtaining the substance in a pure condition. We have not experienced this difficulty. We have relied, throughout the work to be described, on the estimation of the nitrogen content as a criterion of purity of the indigotin sued as our standard. The existence of an isomeric substance as an impurity has therefore not been totally excluded, but is rendered exceedingly improbable by the fact that analytical results, agreeing substantially with the indigotin content indicated by estimation of the nitrogen, have been obtained with all the methods used.

Average Bengal indigos containing no indirubin were used as raw material for the preparation of pure indigotin, and were preliminarily purified in either of the two following ways:—

1. The finely powdered indigo was intimately mixed with plaster of paris and water and spread out in thin layers on tin sheets. When dry gentle heat was applied until the indigotin sublimed on to the surface in the form of a velvety layer of crystals. Two nitrogen estimations of crystals obtained in this way gave N=10.49 and 10.448 per cent. (mean value 10.469), corresponding with an indigotin content of 97.88 per cent.

2. The finely powdered indigo was suspended in lime water and reduced with sodium hyposulphite, the solution of indigo-white reoxidized by agitation with air and the precipitated indigotin filtered off and washed; this was then boiled with hydrochloric acid and again filtered off and thoroughly washed. The substance thus obtained showed on analysis by the permanganate method a content of 93 per cent. indigotin.

Approximately pure indigotin obtained by either of these methods was further purified by dissolving the substance in a mixture of 100 parts glacial acetic acid and four parts sulphuric acid, and hydrolyzing the indigotin monosulphate formed by water in the manner described by Mohlau and Zimmermann (loc. cit.); the precipitated indigotin was thoroughly washed and dried. Five nitrogen estimations of the product obtained this way gave as a mean value N=10.615, corresponding with 99.33 per cent. indigotin.

Attempts to Isolate the Impurities Occurring in Natural Indigo.—It appeared to us that a much more real difficulty in checking the accurancy of the various methods of indigo analysis than that of obtaining pure indigotin lay in the direction of obtaining the naturally occurring impurities of commercial indigo free from indigotin, so that their effect on the methods could be directly traced. The ideal way of doing this would be to obtain a selective solvent for indigotin so that the whole of the substance could be extracted from commercial indigo and the impurities be left intact. A large number of indigotin solvents, including naphthalene, nitrobenzine, aniline and phenol were experimented with to this end, but in no case could the whole of the indigotin be extracted, whilst substances other than indigotin were invariably removed by the solvent. This method had therefore to be abandoned.

A second attempt to obtain the impurities free from indigotin was made by adopting the principle involved in the method of Mohlau and Zimmermann for the analysis of indigo, but it failed. Some other attempts were made, but were equally unsuccessful.

Finding this an apparently impossible task when starting from finished indigo, we had recourse to the indigo plant as a source of the impurities. Indigo is manufactured by steeping the plant in water for several hours and oxidizing the infusion with air, whereby the dye separates out and settles to the bottom of the vessel in which the operation is conducted; the supernatant liquid is then run off and the indigo collected. This supernatant liquid contains a great deal of matter in solution, and it seemed probable that if these dissolved substances could be separated from the waste water they would be of a very similar nature to those precipitated with the indigotin, and eventually constituting the impurities we were desirous of isolating. This was easily accomplished by evaporating the liquid to small bulk, and the brown bodies precipitated were found, on sulphonation and testing in the manner previously described, to behave exactly like the impurities of finished indigo. They were used as impurities in testing some of the methods of analysis to be described, but the idea only occurred to us late in the manufacturing season and sufficient material could not be obtained to extend the principle to all the methods investigated. We hope to do so during the next season. Meanwhile we have had recourse to the use of obviously artificial impurities as diluents for pure indigotin. Starch and vegetable gluten have been selected as being of approximately the same type of bodies as those occurring in natural indigo, and have been used in the particular manner which the method under investigation demanded.

Indirubin.—The occurrence of indirubin as a constituent of natural indigo has been disputed by Bloxam, but we have not been able to confirm his observations. On the contrary, the investigation into the nature of the red bodies existing in some indigos, at present in progress in this laboratory, has not only shown that indirubin is a very common constituent of natural indigo, but also that its formation from the indigo plant can be very easily explained. Being isomeric with indigotin, it behaves in a sufficiently similar manner towards reagents to profoundly affect methods for the estimation of that substance, and we have therefore thought it of value to trace its effect on the processes we have examined separately from that of other impurities. Synthetic indirubin showing a nitrogen content of 10.06 per cent. (corresponding with 94.275 per cent. indirubin) has been used for this purpose, sufficient natural indirubin not being available.

Methods Depending on the Oxidation of Sulphonated Indigos.—Of these methods only those in which potassium permanganate is used as an oxidizing agent are reliable, and only these are at all generally used.

Rawson's Method.—A full description of the permanganate method as worked out by Rawson will be found in that author's papers and in "A Dictionary of Dyes and Mordants," by Rawson, Gardner and Laycock. Briefly, the method consists in sulphonating the indigo by heating with pure sulphuric acid at 70 deg. to 80 deg. for an hour, diluting, purifying the solution of indigotin-disulphonic acid obtained by addition of barium chloride, and titrating a known volume of the solution, diluted with a large column of water, with approximately N/50 permanganate until all the blue color disappears.

The method is open to criticism from three points of view:—(1) The reaction involved may not be a quantitative one; (2) the method of purifying the solution may lead to the precipitation of indigotin; (3) the impurities present may not be entirely removed by the precipitant and may affect the permanganate. We have investigated the method from each of these points of view.

Bloxam (loc. cit.) lays great stress upon the objection, first raised by him, that the reaction is not a quantitative one, and points out that, even if pure indigotin be dealt with, and the conditions laid down by Rawson be strictly adhered to, the reaction is a progressive one and no definite end point can be arrived at in titration. Our experience of this method has extended over a good many years, and we have never found this objection to hold; with a little practice the end point is absolutely sharp and distinct even when an impure indigo is used, whilst with pure indigotin no previous practice should be necessary. The reaction is admittedly a progressive one, and it is therefore necessary to conduct the titration rapidly and to take the disappearance of the blue color as an indication of its completion; for this reason Bloxam's experiments on the subject are irrelevant. The exact reaction which is measured by the process is a matter for future investigation; it is clear that it is not represented by the equation given by Rawson as expressing the interaction of concentrated solutions of permanganate and indigotindisulphonic acid, since, as Rawson himself points out, the equation does not indicate the proportion found to exist between these two bodies when they react in dilute solution; but the fact that the reaction measured is a quantitative one, and that the relation between the reacting substances is accurately expressed by that found by Rawson (2.373 indigotin=1 permanganate) is demonstrated by the following results obtained by an application of the method to pure indigotin. No barium chloride or other purifying agent was used in these tests, since no impurities were present.

Nitrogen per cent. in substance.	Indigotin per cent. calculated from nitrogen content.	Grms. of substance sulphonated solution made up to 500 c. c.	Volume of solution titrated in c. c.
10.59	99.1	0.3	25
10.59	99.1	0.3	25
10.59	99.1	0.3	25
10.59	99.1	0.5	25
10.62	99.4	0.5	25

Titre of parmanganate.	Volume of permanganate required in c. c.	Indigotin per cent. in substance, calculated from permanganate using Rawson's factor.
N/49.45	10.05	99.39
N/49.45	10.00	98.9
N/49.45	10.05	99.39
N/49.45	10.7	99.1
N/50.20	10.5	99.39

Method of Sulphonation.—It is clear from the above table that Rawson's method of sulphonation and titration leads to correct results. The sulphonating process is, however, somewhat troublesome, and we have investigated a more rapid and convenient method of conducting this operation suggested by Dr. Schulten, of Calcutta, and used in his laboratory. The method differs from that of Rawson, in that small glass-stoppered bottles, which can be easily and rapidly shaken, are used instead of open crucibles, which require frequent stirring; and the sulphonation is conducted at the temperature of a briskly boiling water-bath for a quarter of an hour, instead of at 70 deg. to 80 deg. for an hour. Pure indigotin, sulphonated in this way, has been found to give correct analytical results when diluted and titrated in accordance with Rawson's recommendations. Some results obtained by its application to commercial indigos of varying qualities are given later.

Method of Purifying the Solution of Indigotindisulphonic Acid.—In applying the permanganate method to the analysis of commercial indigos it is always necessary to employ some method of removing the undissolved impurities which remain in suspension when the solution of indigotindisulphonic acid in sulphuric acid is diluted with water; otherwise the end point of the titration is masked and the result obtained too high. Rawson's methods of filtering and of salting out the sodium salt of the acid, have now been entirely replaced by the same author's plan of producing a precipitate of barium sulphate in the solution by the addition of barium chloride, whereby the impurities are carried down; of this method Rawson states, "Tests made with pure indigotin show that no coloring matter is precipitated by the barium chloride" ("Dictionary of Dyes and Mordants"). Owing to the insoluble nature of the barium salt of indigotindisulphonic acid this seemed antecedently improbable, though the amount of the salt precipitated might conceivably be too small to affect the analysis due to the greater insolubility of barium sulphate. The following experiments were carried out on this point:—

Four samples of a pure natural indigotin, showing by estimation of their nitrogen a content of 99.4 per cent. indigotin, were sulphonated. The solutions were made up to 500 c.c., without the addition of barium chloride, and 25 c.c. titrated with permanganate; 10 c.c. of a 20 per cent. solution of barium chloride were then added to each of the solutions, the volumes made up again to 500 c.c., and after thoroughly shaking and allowing the solutions to remain for the precipitates to settle, 25 c.c. were again titrated, the results obtained being calculated back to the volume of the original solution (i. e., multiplied by 20/19). This process was repeated a second time, making the solution up to 500 c.c., and again calculating back from the titration of 25 c.c. to the volume of the first solution. The results obtained were identical in the case of each series of experiments, and were as follows:—

	Percentage content of indigotin
Without addition of barium chloride..	99.39
With addition of 10 c. c. of 20 per cent. barium chloride solution.....	95.78
With addition of 20 c. c. of 20 per cent. barium chloride solution.....	92.77

There thus appears to be a distinct precipitation of indigotin and consequent drop in the amount estimated. This was confirmed with two samples of synthetic indigo made by the Badische Anilin and Soda Fabrik, in which cases the effect of further addition of barium chloride was tried and the following results obtained:—

PERCENTAGE CONTENT OF INDIGOTIN.

	B.A.S.F. "Indigo Pure" 1898.	B.A.S.F. "Indigo Pure" 1905.
Without addition of barium chloride	98.1	93.7
With addition of 10 c. c. of of 20 per cent. barium chloride solution.....	96.8	92.1
With addition of 20 c. c. of of 20 per cent. barium chloride solution.....	95.2	90.3
With addition of 30 c. c. of of 20 per cent. barium chloride solution.....	93.3	88.1

It is clear therefore that an appreciable amount of indigotin is precipitated by the addition of the quantity of barium chloride recommended by Rawson, and that the precipitation is progressive with successive additions of the precipitant.

Grossmann's Method.—An alternative method of removing the suspended impurities from the diluted solution of indigotindisulphonic acid has been proposed by Grossmann. This consists in neutralizing the solution with pure calcium carbonate, whereby a heavy precipitate of calcium sulphate is formed which carries down all suspended impurities, whilst, according to the author of the method, the neutralization of the solution leads to the precipitation of other impurities which would otherwise remain dissolved in the dilute acid. In this latter respect, the author claims that his method of purification has advantages over that of Rawson.

This method seemed to us open to the same objection as we had found to exist when barium chloride was used as a precipitant; that indigotin would inevitably be carried down as the disulphonic acid salt of the base of the substance used for precipitation, in this case calcium. On applying the method to a specimen of pure natural indigotin, showing by estimation of its nitrogen and by titration with permanganate without addition of a precipitant, a content of 99.35 per cent. indigotin, the result indicated a content of only 96.0 per cent.; showing that 3.35 per cent. of the indigotin present had been carried down by the calcium carbonate.

To confirm this explanation of the low result obtained, the following experiments were carried out:—1 grm. of each of three different indigos of high purity was sulphonated and the solutions made up to 1 liter; five portions of 100 c.c. each were then withdrawn from each of these solutions and varying quantities of calcium carbonate added to each, after which they were made up to 500 c.c., and the precipitates having been allowed to settle, 249 c.c. titrated with permanganate (1 c.c. being allowed for the bulk of the precipitate vide Grossmann). The remainder of these solutions were then made up again to 500 c.c. in each case, well shaken, and, after allowing the precipitates to settle, 249 c.c. were again withdrawn for titration. The results were calculated back to the weight of the indigo originally taken, and the following results obtained:—

INDIGO A (NATURAL) CONTAINING 96.96 PER CENT. INDIGOTIN.

Amount of calcium carbonate added.	First titration.	Second titration.
4 grms. (solution acid).....	96.96	96.96
4.5 grms. (solution acid)....	95.75	96.65
5 grms. (solution slightly acid)	94.53	97.26
5.5 grms. (solution neutral)..	92.71	97.86
6 grms. (solution neutral)....	93.0	97.5

INDIGO B (SYNTHETIC) CONTAINING 98.1 PER CENT. INDIGOTIN.

Amount of calcium carbonate added.	First titration.	Second titration.
4 grms. (solution acid).....	97.8	98.1
4.5 grms. (solution acid)....	96.6	97.2
5 grms. (solution slightly acid)	95.7	98.4
5.5 grms. (solution neutral)..	95.7	98.4
6 grms. (solution neutral)....	95.7	98.4

INDIGO C (SYNTHETIC) CONTAINING 96.1 PER CENT. INDIGOTIN.

Amount of calcium carbonate added.	First titration.	Second titration.
4 grms. (solution acid).....	95.4	98.1
4.5 grms. (solution acid)....	92.7	99.3
5 grms. (solution slightly acid)	91.8	100.2
5.5 grms. (solution neutral)..	92.4	99.0
6 grms. (solution neutral)....	92.4	100.2

These results clearly indicate that indigotin is carried down by the calcium carbonate added and that the action is progressive with successive additions of the precipitant up to the point of neutrality. This is shown not only by the falling off in the amount of indigotin estimated in successive experiments in the first series of titrations, but also by the corresponding gradual increase in the amount estimated in the second series, this no doubt being due to the redissolution of the precipitated calcium indigotindisulphonate on addition of more water. In this way the results obtained considerably exceed the truth in some instances in the second series of titrations. This method of purifying the solution of indigotindisulphonic acid is therefore liable to lead to very erroneous results when applied to high grade indigos, but the error is not so large as that inherent in the barium chloride method, due to the solubility of the calcium salt being greater than that of the barium salt, and it will be seen in the table of page 734 that when applied to indigos of average commercial purity it is very small indeed.

Precipitation of Impurities by Barium Sulphate.—We have found that if a precipitate of barium sulphate is freshly formed out of contact with the solution of indigotindisulphonic acid, and added to the latter as such, the precipitation of indigotin does not take place, and, by thoroughly shaking the barium sulphate in the solution, it is as efficiently purified as by either of the methods previously described.

In the following experiments 10 c.c. of a 20 per cent. solution of barium chloride were placed in the 500 c.c. flask and barium sulphate precipitated by addition of an excess of sulphuric acid before the addition of the solution of indigotindisulphonic acid. The solution was then made up to volume, well shaken, and the precipitate allowed to settle, and 25 c.c. titrated with permanganate as in the previous experiments.

PERCENTAGE CONTENT OF INDIGOTIN.

	Natural indogitin.	B.A.S.F. "Indigo Pure," 1905.
Without addition of barium chloride	99.5	93.7
With addition of barium sulphate precipitated from 10 c. c. of 20 per cent. barium chloride solution..	99.7	93.91

A large number of commercial indigos were analyzed by titration with permanganate to compare this method of purifying the solution of the sulphonic acid with that of Rawson. The following are a few of the results obtained:—

PERCENTAGE CONTENT OF INDIGOTIN.

	With addition of barium sulphate precipitated from 10 c.c. of 20 per cent. barium chloride solution.
With addition of 10 c.c. of 20 per cent. barium chloride solution (Rawson).	75.11
73.9	73.35
71.0	69.82
69.24	60.70
58.68	55.2
53.1	

Thus a higher result is obtained in every case by precipitating the barium sulphate before the addition of the indigotindisulphonic acid solution. This was found to be true of every indigo analyzed. The higher results could not be accounted for by impurities remaining in suspension, since portions of the solutions were filtered simultaneously with the performance of the titrations, and no traces of impurity were found in suspension. The end point in titration was perfectly sharp and clear, whilst the fact that higher results were obtained with this method when dealing with pure indigotin confirmed the explanation that they were due to the precipitation of indigotin when Rawson's method of purification was used.

We have, therefore, adopted the barium sulphate method of purification, and have used it in the following experiments on the influence of dissolved impurities on the permanganate method.

Effect of Dissolved Impurities.—In titrating a solution of a sulphonated commercial indigo, purified by either of the above described methods with permanganate, a very much darker end point is obtained than if a pure indigotin is dealt with, showing that certain impurities are left in solution in the dilute acid, and are therefore not carried down by precipitants. It was with a view of tracing the effect of these bodies that the attempts, previously described to obtain the natural impurities free from indigotin were made. It has been shown that these attempts were unsuccessful, but that other bodies very closely resembling them were obtained by evaporation of the waste water from indigo manufacture. In the following experiments a solution of such impurities was made by sulphonating, diluting, and purifying as previously described, under the identical conditions used for indigo. Three different specimens of impurities, derived from three different samples of waste water, were employed, and in each case a known weight was taken, and the solution made up to known volume. A solution of "B.A.S.F. Indigo pure" containing 98.4 per cent. indigotin was made in the same manner but without purification, and known volumes of this solution were mixed with known volumes of each of the solutions of impurities in such proportions as together represented indigos of various degrees of purity. The mixed solutions were then titrated with permanganate, and the following results obtained:—

*A paper read at a recent meeting of the London Section of the Society of Chemical Industry.

PERCENTAGE CONTENT OF INDIGOTIN IN MIXTURE.

By calculation.	By experiment (Impurities A.)	By experiment (Impurities B.)
73.8	74.7	74.4
61.5	62.4	62.4
49.2	50.4	50.4
24.6	27.0	27.0

By experiment (Impurities C).	Average. Percentage error.
73.9	0.5
62.4	0.9
50.3	1.16
26.96	2.39

The error is thus seen to be progressive with decreasing purity of the indigo, amounting, in the case of an indigo of average commercial purity (60 per cent.), to about 1 per cent.

To confirm these results, a mixture of equal weights of starch and vegetable gluten was used as impurity, and the experiments carried out exactly as before. The following figures were obtained:—

PERCENTAGE CONTENT OF INDIGOTIN IN MIXTURE.

By calculation.	By experiment.	Average perc'tge error.
74.25	74.4	0.15
49.50	49.8	0.3
24.75	25.05	0.3

Here again the error is found to increase with decreasing purity, but it is considerably smaller than in the previous set of experiments for indigo of like purity. The end points in titration were also considerably lighter and brighter than in dealing with natural indigos of the same degree of purity. Experimental facts obtained indicate that starch and gluten do not provide impurities of a type truly representative of those of natural indigo, but the results are worthy of record as showing how little effect such bodies have upon the method of analysis.

Effect of Indirubin.—A solution of sulphonated indirubin was made exactly as described for the solution of the impurities dealt with in the preceding paragraph. Volumes of this solution were then mixed with volumes of a solution of pure natural indigotin so as to represent indigos of known indirubin content and titrated as before. The following results were obtained:—

PERCENTAGE CONTENT OF INDIGOTIN IN MIXTURE.

By calculation.	By experiment.	Percentage error due to indirubin.
96.5	97.62	1.12
94.0	94.97	0.97
89.0	91.62	2.62

Thus a very small proportion of indirubin affects the results considerably, but concordant results within the limits of accuracy shown in the table can be obtained with practice by conducting the titration until all the blue color is destroyed.

Methods Depending on Reduction of Sulphonated Indigo.—The principle underlying these methods is the quantitative reduction of indigotindisulphonic acid to the corresponding leuco compound by titration with a reducing agent until all the blue color is destroyed. It is therefore necessary to conduct the operations out of contact with air so that the apparatus required is somewhat complicated.

Hyposulphite Method.—Sodium hyposulphite has been most commonly used as a reducing agent, and a full description of a method involving its use will be found in "A Dictionary of Dyes and Mordants," by Rawson, Gardner & Laycock. We have found the method to give correct results when applied to pure indigotin, but the method of standardization of the hyposulphite with ammoniacal copper sulphate is troublesome; the solution of hyposulphite is exceedingly unstable, and it is necessary to carefully expel all air from the solution to be titrated, and to cool it thoroughly out of contact with air before titration, if correct results are to be obtained. The following experiments were carried out to trace the effect of dissolved impurities on the method. The substances derived from waste water in indigo manufacture were used as impurities, and the solutions made up for titration in exactly the same way as previously described in testing their effect on the permanganate method. The following results were obtained:—

PERCENTAGE CONTENT OF INDIGOTIN IN MIXTURE.

By calculation.	By experiment.	Perc'tge error.
74.475	75.95	1.475
49.65	51.26	1.61
24.825	27.26	2.436

The end points in titration were not very clear, and the error is no doubt to some extent due to the uncertainty of determining the exact completion of the reaction. This was also found to be the case in dealing with ordinary commercial indigos, but fairly accurate results were obtained by the application of Grossmann's method of purification to the solutions before titrating with hyposulphite.

Effect of Indirubin.—It is stated in "A Dictionary of Dyes and Mordants" that the hyposulphite method does not estimate indirubin in the presence of indigotin. With a view to determining the effect of this substance on the determination of indigotin, a similar series of experiments to those described for tracing the effect of indirubin on the permanganate method was carried out, and the following results obtained:—

PERCENTAGE OF INDIGOTN IN MIXTURE.

By calculation.	By experiment.	Perc'tge error.
96.5	99	2.5
94.0	99	5.0
89.0	99	10.0

The error due to indirubin is thus in every case equal to the amount of that substance added. The end points in titration were perfectly sharp and the solutions obtained at the conclusion of the operation of a brownish-yellow color, exactly like that obtained when pure indigotin is estimated. It is evident, therefore, that the method determines the two constituents simultaneously.

To confirm this the method was applied to a specimen of pure indirubin (N=10.06 per cent., corresponding to 94.275 per cent. indirubin), and was found to show a content of 94.5 per cent. indirubin, coinciding very nearly with the truth.

Titanous Chloride Method.—This method has recently been described by Knecht and depends upon precisely the same reaction as the hyposulphite method. It has the advantages over the latter method, however, that the solution of the reagent is more stable, the standardization is more easily accomplished, the end point in titration (using Grossmann's method of purifying the sulphonic acid solution) is snarper, and the solution may be titrated warm without any ill-effect. The method gives correct results with pure indigotin, but, as is pointed out by its author, no clear end point in titration can be obtained with an impure indigo unless the solution to be titrated is purified by Grossmann's method. The results obtained are therefore subject to the same errors as we have shown to be inherent in this means of purification, but these are small when indigos of average quality are dealt with. The effect of starch and giuten added as impurities to pure indigotin is shown in the following table:—

PERCENTAGE CONTENT OF INDIGOTIN IN MIXTURE.

By calculation.	By experiment.	Perc'tge error.
74 475	74.66	0.185
49.65	49.7	0.05
24 825	24.88	0.055

The error introduced by these impurities is thus very slight.

We have confirmed the author's statement that this method determines indirubin together with indigotin, having obtained by its use a precisely similar set of figures to those above showing the effect of indirubin on the hyposulphite method. Indirubin is also correctly estimated alone.

Acetic-Sulphuric Acid Method.—This method is founded on the formation of the monosulphate of indigotin in glacial acetic acid solution, its hydrolysis by pouring the solution into water and weighing of the precipitated indigotin as such. The method of formation of the monosulphate was first described by Binz and Kufferath (Annalen, 1902, 325, 196), and its application as a means of analysis by Mohlau and Zimmermann (Zeit. Farb. Text Chem., 1903, 10, 189). Bloxam (loc. cit.) shows that a method of quantitative analysis of indigo cannot be founded upon the use of the mixture of acetic and sulphuric acids used by Binz and Kufferath, containing five parts of the former acid to one part of the latter, since the product derived from a commercial indigo by pouring the solution obtained into water is not pure indigotin, even after thorough washing with alcohol. Pure indigotin is, however, obtained if a fairly pure specimen of indigo is used as a starting point. We have confirmed these observations and have experimented with the modification suggested by Mohlau and Zimmermann (loc. cit.), which mainly consists in using a mixture of acetic and sulphuric acids containing only four parts of the latter acid to 100 of the former. We have found this method to give correct results with pure indigotin, and with indigos showing a content of over 90 per cent. of this constituent, the precipitate obtained containing over 99 per cent. of indigotin, as has already been shown in describing our methods of obtaining this substance in a pure condition. In dealing with commercial indigos the operations of sulphate formation and hydrolysis must be repeated many times before pure indigotin is obtained as a precipitate, and the manipulations necessary are very liable to lead to errors, which assume a considerable magnitude when calculated on to the small weight of substance with which it is requisite to work. We have found that as much as 0.25 grm. of indigo can be safely dealt with by this method, using the quantity of mixed acids recommended by its authors, but it is not advisable to exceed that amount. The precipitates obtained should always be thoroughly washed with alcohol to remove red impurities which are carried down with the indigotin. In the analyses of commercial indigos by this method, given in table above, these precautions were adopted and precipitates ultimately obtained showing a content of 99.8 per cent. indigotin by titration with permanganate. The procedure is however, tedious, and the method does not recommend itself.

PERMANGANATE METHODS.

	Sulphonation by Rawson's method.		Sulphonation in boiling water-bath and purification by solution by Grossmann's barium sulphate.
	Purification of solution by barium chloride.	Purification of solution by barium sulphate.	Purification by solution by barium sulphate.	
I.	75.14	77.26	77.26	77.0
II.	68.81	70.31	69.71	70.5
III.	68.81	69.11	68.81	69.8
IV.	60.36	61.86	61.26	62.4
V.	54.32	55.53	54.92	55.8
VI.	45.87	47.08	47.08	47.2

	Reduction methods using Grossmann's of purification.		Acetic sulphuric acid-method of Mohlau and Zimmermann.
	Hyposulphite method.	Titanous chloride method.	
I.	76.26	77.09	75.8
II.	70.25	69.77	70.0
III.	68.95	68.99	70.37
IV.	61.63	61.41	62.35
V.	54.32	54.88	55.3
VI	47.01	47.3	46.4

Effect of Indirubin.—A set of experiments, similar to those carried out to trace the effect of this constituent on the other methods of analysis, gave the following results:—

PERCENTAGE CONTENT OF INDIGOTIN IN MIXTURE.

By calculation.	By experiment.	Perc'tge error.
96.5	97.85	1.35
94.0	95.6	1.6
89.0	92.85	3.85

Thus the indirubin is partially, but not wholly, estimated by the method, being soluble to some extent in dilute acetic acid; correct results for indigotin can, therefore, not be obtained in the presence of this constituent.

Application of the Methods Investigated to Commercial Indigos.—In the following table we have summarized the results obtained in estimating the indigotin content of six typical Bengal indigos. All the results are expressed on dry material and are the mean of duplicate experiments.

The table shows that fairly concordant results are obtained with all the methods investigated except that in which barium chloride is used as a precipitant. The permanganate methods are a good deal simpler, and more rapid in execution than the reduction or gravimetric methods, and we were unable to find any superiority in the sharpness of the end point when applying Grossmann's principle of purification to the solutions titrated with permanganate, whilst we have shown that the use of calcium carbonate, besides requiring more manipulation than that of barium sulphate, involves a small error. Purification with calcium carbonate is essential to reduction methods, and one of these should be used in estimating indigotin in indigos containing indirubin, the latter constituent being then separately determined by a special method and deducted. For all other indigos the highest accuracy is combined with the most rapid working by proceeding as follows:—0.5 grm. of finely powdered indigo is placed in a small, narrow-necked stoppered bottle and mixed with a few Bohemian garnets; 20 c.c. of pure concentrated sulphuric acid are added, and the bottle, with its stopper removed, placed in a shallow water-bath containing just enough water to cover the depth of acid in the bottle. The bath is now brought to the boil, and when briskly boiling, the stopper is replaced in the bottle, which is shaken periodically for 15 minutes. At the end of this time the bottle is removed from the water-bath, and allowed to remain in cold water with its stopper removed until the contents are cool. These are then transferred to a 500 c.c. flask in which 10 c.c. of a 20 per cent. barium chloride solution and sufficient sulphuric acid to precipitate all the barium has previously been placed, and the whole made up to volume, well shaken, and set aside for the precipitate to settle for one hour. An aliquot part of the supernatant liquid is then titrated with approximately N/50 permanganate, and the result calculated on the basis that 1 c.c. N/50 permanganate is equivalent to 0.0015 grm. indigotin.

The Determination of Indigotin in Indigo-Yielding Plants.—The work now in progress in India on the improvement of the cultivation and manufacture of indigo has rendered it imperative that a reliable method of estimating the amount of indigotin a given plant is capable of yielding should be available. Such a method was devised by Rawson in 1900, and an account of it published in his "Report on the Cultivation and Manufacture of Indigo," in 1904. The method consists in extracting 20 grms. of leaf (in which all the color-yielding principle resides) with boiling water, straining off the leaves, and precipitating the indigotin from the solution of the glucoside so obtained by the addition of 5 c.c. of hydrochloric acid (containing 20 per cent. HCl) and 40 c.c. of a 5 per cent solution of ammonium persulphate. The solution of ammonium persulphate is added gradually, 2 c.c. together with the hydrochloric acid, and 2 c.c. after this at half-hour intervals for one hour, the remaining 34 c.c. being added all together at the end of two hours from the first addition. After standing for another hour, the preciptated indigotin is filtered off through asbestos, washed, dried, and further treated as in the ordinary analysis of indigo.

It was pointed out by one of us that this method of precipitating the indigotin from an extract of the indigo plant did not give the same result as was obtaingd by fermenting the extract with the enzyme extracted from indigo leaves and oxidizing the fermented liquid with air, a larger amount of indigotin being invariably obtained by the latter method. We have investigated the cause of this anomaly, and, as a preliminary, have submitted the fermentation method to a careful examination, with a view to determining the accuracy in the results obtained by its application. The plant extract and enzyme solution were prepared exactly as described in the previous paper, and the same methods for determining the completion of the fermentation process and for oxidizing the solutions have been adopted. The following experiments were carried out:—

Experiment A.—450 c.c. of extract were fermented with 150 c.c. of enzyme solution, and the fermentation being complete after two hours and forty minutes, two portions of 280 c.c. each were withdrawn and oxidized, and the indigotin precipitated, determined in each case (I. and II.); 450 c.c. of the same extract were fermented with 75 c.c. of enzyme solution, in which case the fermentation process took four hours and forty minutes for completion, and two portions of 245 c.c. each were then withdrawn from this solution, oxidized, and the indigotin determined (III. and IV.).

Experiment B.—440 c.c. of extract were fermented with 220 c.c. of enzyme solution, and after four hours, the fermentation being complete, two portions of 300 c.c. each were withdrawn, oxidized, and the indigotin estimated (I. and II.); 440 c.c. of the same extract were fermented with 110 c.c. of enzyme solution, and on completion of the fermentation after seven hours, two portions of 250 c.c. each were withdrawn, oxidized, and indigotin determined (III. and IV.). The following results expressed as the amount of indigotin obtained from 200 c.c. of extract in each case were obtained:—

	I.	II.	III.	IV.
	grm.	grm.	grm.	grm.
Experiment A....	0.1680	0.1675	0.1687	0.1665
Experiment B....	0.100	0.100	0.100	0.098

It is thus shown that the results obtained by fermenting an extract of plant under varying conditions are concordant, and it is therefore probable that the figures obtained represent the true amount of indigotin obtainable from the extract.

Attempts were accordingly made to bring the chemical method of precipitation into line with the fermentation method. It was thought probable that the difference was due to the employment of an excess of persulphuric acid in Rawson's method, since indigotin is oxidized and dissolved by an excess of this reagent, and the amount used by Rawson far exceeds the requirements on the assumption that the body oxidized is indoxyl. We have found this to be the case, and that results coinciding exactly with those obtained by fermentation may be obtained by proceeding as follows:—The extract of leaf is made as recommended by Rawson, care being taken to keep the volume as small as possible. The extract is then thoroughly cooled, and 5 c.c. of strong hydrochloric acid and 2 c.c. of a 5 per cent. solution of ammonium persulphate added. The solution is then allowed to remain for at least an hour, and a small portion then removed and filtered through the asbestos filter ultimately to be used for filtration of the indigotin precipitated. The filtrate is a clear yellow color, but if the color becomes green on standing the filtrate is returned to the main volume, and no further persulphate is added until a test-portion shows the action of the first addition of 2 c.c. complete; if the yellow color of the filtrate is permanent a few drops of persulphate solution are added to it, and if a green color is then produced the filtrate is returned to the main solution, together with another 2 c.c. of persulphate solution. When a test-portion no longer turns green either on standing or by further addition of persulphate, the reaction is complete, and the solution may then be boiled and filtered, and the indigotin estimated as previously described. We have found that, in dealing with 20 grms. of leaf, 8 c.c. of a 5 per cent. persulphate solution is the maximum required.

The identity of the results obtained by this method and by fermentation with enzyme is shown by the following experiments:—

Experiment A.—The quantity of indigotin obtainable from two portions of extract of 100 c.c. each was determined by the persulphuric acid method described (I. and II.); 220 c.c. of the same extract were fermented with 110 c.c. of enzyme solution, and two portions of 150 c.c. each were withdrawn, oxidized, and indigotin precipitated and determined when fermentation was complete (III. and IV.).

Experiment B.—The indigotin obtainable from two portions of extract of 150 c.c. each was determined by persulphuric acid (I. and II.), and 175 c.c. of the same extract were fermented with the same volume of enzyme solution, and the indigotin precipitated by oxidation determined in 300 c.c. of the fermented solution (III.). The following results, expressed as the amount of indigotin obtained from 100 c.c. of extract, were obtained:—

	Persulphuric acid method. grm.		Fermentation. grm.
Experiment A..	I.	0.0667	III. 0.0667
	II.	0.0663	IV. 0.0668
Experiment B..	I.	0.0650	
	II.	0.0650	III. 0.0650

The accuracy of the persulphuric acid method as a means of determining the amount of indigotin obtainable from an extract of indigo plant is thus established.

Paint Manufacturers Association Meeting.

A special meeting of the Paint Manufacturers Association of the United States will be held at the Auditorium Annex, Chicago, on May 14 and 15. The meeting is convened merely for the purpose of considering routine business and receiving reports of some of the special committees.

Concession to Independent Oil Companies.

The news comes from Cleveland that the railroads have made a big concession to the independent oil men. The independents will no longer have to pay $105 for the return of an empty tank from the Pacific coast to a refinery east of the Missouri River. A rate that, it is said, has been a big factor in the success of the Standard Company is now withdrawn. Both moves are made in advance of the Interstate Commerce Commission hearing to be held at Washington, May 21. Notice to this effect has been received at the headquarters of the National Petroleum Association in this city. The readjustment of rates means that the Standard Oil Company loses an exclusive rate of 78½ cents a hundred from Central Freight and Trunk Line Association territories to the Western coast.

(Special to Oil, Paint and Drug Reporter.)

St Louis Trade Items.

Both parties in the suit brought by the Waters-Pierce Oil Co., against the Peruto Chemical Co., won a victory when a jury in the Circuit Court here last week gave the plaintiff a verdict for $77.42 and allowed the chemical company's counter claim of $250. The chemical company resisted payment on the ground that the Waters-Pierce Oil Co. was an illegal combination in restraint of trade and without standing in court. The allowance of the Waters-Pierce Co.'s claim indicates that the jury was not influenced by that contention. The Waters-Pierce Co. alleged that the amount for which it sued represented the value of goods sold to the chemical company. The latter's counter claim was for the making of a compound used in coloring oils.

The Stoemer Drug Co. filed articles of incorporation last week with a capital stock of $8,000. The object of the corporation is given to be to do a general drug business. Charles G. Stoermer holds 69 shares, Charles Norford holds 10 shares and Eleanora Norford holds one share.

The Uron Chemical Co. filed articles of incorporation last week with a capital stock of $80,000, fully paid. The object of the corporation is to manufacture and deal in chemical preparations. The incorporators are John J. Nally, who holds 7,925 shares; William L. Nichols, P. J. Staed and M. S. Rower, 25 shares each.

The Mayor of Alton drove the first spike last Tuesday in the $3,000,000 oil refinery to be built east of Alton by the Standard Oil Co. The beginning of actual construction was witnessed by a large number of invited guests from Alton and elsewhere. J. E. Evans, chief engineer, issued an invitation to Alton people who desired to be present. Chief Engineer Evans has made a statement that there is no possibility of polluting the St. Louis water supply in consequence of the building of the refinery on the river bank.

(Special to Oil, Paint and Drug Reporter.)

Valuable Oil Leases Sold.

St. Louis, April 26, 1907.

After owning for one year the oil leases on the 2,660 acres of oil lands in Lawrence and other counties in Illinois, which cost about $100,000, August A. Busch, vice-president of the Anheuser-Busch Brewing Association and his associates in the Busch-Everett Oil Company, last week sold the leases for $1,000,000 cash. This is said to be the largest individual transaction ever made in the Illinois oil fields. The land is in the vicinity of Bridgeford and Lawrenceville, Ill. The Ohio Oil Company, of Findley, Ohio, a subsidiary company of the Standard Oil Co., bought the leases. Thirty-four wells have been drilled, which gave a flow of 15,000 barrels of high-proof oil per day. This oil was sold to the Ohio Oil Co., and others at 70 cents per barrel or $10,500 per day.

Fourteen more wells are being drilled and some are to be shot within a few weeks.

The Busch-Everett Oil Co. acquired leases on 40,000 acres of land. The leases and development cost $100,000. In that time they have sold some leases at a good profit, besides selling the oil. Two months ago Mr. Busch refused $500,000 for the leases.

The Ohio Oil Company was represented in the deal by J. C. Donnell, W. J. Berry and W. Schofield. The Busch-Everett Oil Company is composed of August A. Busch, C. H. Everett, of Newark, Ohio, and Louis Dennig, manager of the city department of the Busch Brewing Association.

The oil lands are about 142 miles east of St. Louis on the Baltimore & Ohio Southwestern Railway.

American Drug Bowlers, Association Neets.

The tenth annual meet of the American Drug Trade Bowling Association comprising teams from New York and Philadelphia and Baltimore will take place on May 3, 4 and 5, respectively, at Sweney's Bowling Academy, at Atlantic City. Following the games a farewell dinner will be served on Saturday, the 4th, at 7.30 p. m.

The teams are well matched and some exciting finishes are expected. Judging from the interest manifested at this time a goodly number will be present to witness the games, which promise to be hotly contested. The Baltimore team will be represented by John Kreh, of the Lowey Drug Co.; M. T. Goldsborough, of the A. B. Co.; William Smuck, of H. B. Gilpin Co.; H. Brauer, of James Bailey & Son, and L. W. Davis, W. R. Turner, G. M. Armor, of McCormick & Co.

The members of the New York team have not been selected as yet, though it is probable the following players will be scheduled to take part:—Stevens, Judge, Ruddiman, Barns, Carr and Maisch.

The officers of the association to whom the hearty thanks of the different members of teams are due, for their efforts in completing the arrangements are:—J. Edwood Lee, president; John Ruddman, vice-president; George Armour, secretary and treasurer, and William J. Carr, Louis Davis, and Samuel Wright, executors.

Essential Oils in India.

ANTIQUATED METHOD OF EXTRACTION IN THAT COUNTRY.

Consul-General W. H. Michael, of Calcutta, reports that at the industrial congress recently held in Calcutta a paper was read on the subject of Indian essential oils from the standpoint of a botanist, and with respect to trade in Indian essential oils of commercial value. In referring to the one method followed in India of extracting the oils the report contains the following:—

"In India only one method of extraction is in general use. This method is the distillation of plants, or parts of plants, by boiling with water and condensing the steam. Notwithstanding that nearly all essential oils boil at a higher temperature than water, their vapors escape with the vapor of water and collect in the distillate, where separation occurs.

"That method, apparently, is followed in the preparation of all the essential oils produced in India, and the author notes that in the case of the most important of them all—the East Indian geranium or palma rosa oil, known in the vernacular as "rusa-ka-tel"—the distillation is conducted to-day on the method that was in vogue eighty years ago. While no opinion is expressed in the paper as to whether more modern methods of extracting oils, and the manufacture of perfumes, would be an improvement on the old method or not, yet it would seem that the industry could be made more profitable by the adoption of later methods and up-to-date laboratory apparatus, such as are used in America. There is a rich field in India for an enterprising American firm for the extraction of essential oils and the manufacture of perfumes by the most up-to-date methods and apparatus.

EXPORT TRADE IN OILS.

In 1879 the exports of essential oils were valued at $40,149. In 1902-3 they had advanced to $290,290, and the value of exports since 1903 have remained about the same. The export of musk last year amounted to 669 ounces, valued at $4,860. This kind of perfumery is almost wholly consumed by the Maharajah and the wealthy Indian class. All other sorts of perfumes exported from India were valued at $48,750 for 1906. The paper also says:—

East Indian geranium oil, which formerly varied in composition and properties and was frequently adulterated with other oily products, is now being produced on an unprecedented scale, while prices have been materially lowered. As a consequence there is a great demand from Europe, the Indian oil maintaining the premier place in the matter of quantity.

The paper deals with lemon grass and sandal-wood oils in an interesting way.

(Special to Oil, Paint and Drug Reporter.)

Philadelphia Chemical Market.

Philadelphia, April 26, 1907.

ALKALI.—No change in the market conditions can be noted. The demand continues well up on contracts, and more interest is noted for futures. Contract quotations are still ruling at .72½@.75c. for the ordinary 58 per cent. alkali in bulk, f. o. b. works, with the usual differences for other tests and packages. A moderate jobbing demand is noted, with limited supplies to draw from.

CAUSTIC SODA.—The market during the week has been quiet, but a firm undertone is noted. Contracts extending over the year or further are still obtainable at 1.75@1.80c., f. o. b. works, for high test, with .10c. higher named for 60 per cent. The jobbing demand is being supplied at unchanged prices.

SAL SODA.—The approach of the warm weather has resulted in firmer prices, although up to the present writing no change is noted, and .65@.67½c. are still the ruling quotations for American makes. Foreign can be had at .85@.87½c. for shipments, and .97½@1c. on spot in a jobbing way.

NITRATE OF SODA.—Recent arrivals have fairly well supplied the trade here, so that for prompt delivery there is little or no inquiry. Stocks, however, are light, and jobbing parcels still maintain the high level noted before. Shipments have again advanced, and arrivals covering the balance of the year are now quoted at 2.50@2.55c. for 95 per cent., and 2.57½@2.60c. for 96 per cent. These figures are also named for single arrivals in the fall. From vessels due in the summer, slightly under these quotations might be accepted.

Paint Bill Passed in Minnesota.

A TRANSCRIPT OF THE NORTH DAKOTA LAW.

After a stormy and somewhat sensational session the Minnesota Legislature passed the Sawyer bill with the amendment introduced by Mr. Rodenberg, making it effective August 1st, 1907, instead of January 1st, 1908. The Dairy and Food Commission is charged with its enforcement. It will be remembered that the original Sawyer bill was introduced at the instance of the Paint Grinders' Association of the United States and the Rodenberg bill is a transcript of the North Dakota paint law. In last Monday's issue we referred in detail to the row in the Legislature at which adherents of both bills charged the other with unfair practices, and even went so far as to claim that money was being freely distributed in order to influence the legislation. Mr. Rodenberg succeeded in having the Sawyer bill emasculated of everything but its title, and induced the members to accept his bill as an amendment, so in reality the bill as passed, while it bears Mr. Sawyer's name, is the Rodenberg bill. Its provisions as telegraphed the Reporter follow:—

A bill to prevent deception in the sale of paint:—Be it enacted by the Legislature of Minnesota.

Section 1. Whoever shall expose for sale or sell within this State any paint which is labeled or marked in any manner so as to tend to deceive the purchaser as to its nature or composition, or which is not accurately labeled as hereinafter required, shall be guilty of a misdemeanor, and for each offense shall, upon conviction thereof, be punished by a fine of not less than $25 and not more than $100, or by imprisonment in the county jail for a term not exceeding sixty days.

Sec. 2. The term "paint" as used in this act shall include white lead ground in any kind of oil or any compound intended for the same use, or semi-paste and liquid or mixed paint ready for use.

Sec 3. The label required by this act shall clearly and distinctly state the name and residence of the manufacturer of the paint or of the distributor thereof or of the party for whom the same is manufactured and show the name and with substantial accuracy the percentage of each ingredient, both solid and liquid contained therein: Provided, however, that in case of paint other than white paint the ingredients other than the coloring material may be treated as one hundred per cent., in which case it shall be necessary to state not only the name and percentage of each ingredient other than coloring matter, but also the description or trade name of such coloring material and state with substantial accuracy its chemical analysis. Said label shall be printed in the English language in plain legible type.

Sec. 4. The having in possession by any person, firm or corporation dealing in said articles or substances hereinbefore described and not properly labeled as provided in this act shall be considered prima facie evidence that the same is kept by such person or firm in violation of the provisions of this act, and punishable under it.

Sec. 5. The Dairy and Food Commissioner of the State is charged with the proper enforcement of all of the provisions of this act.

Sec. 6. The said commissioner and the assistants, experts, chemists and agents shall be duly authorized for the purpose and shall have access and ingress to all the premises of these factories, stores and buildings used for the manufacture or sale of paints. They shall also have power and authority to open any package, can, jar, tub or other receptacle containing paints that may be sold, manufactured or exposed for sale in violation of the provisions of this act.

Sec. 7. This act shall take effect and be in force from and after August 1, 1907.

Matters of Scientific Interest to Paint Trade.

PAPERS PREPARED BY G. W. THOMPSON, CHEMIST OF NATIONAL LEAD CO., AND LOUIS S. HUGHES, CHIEF CHEMIST OF THE PICHER LEAD CO.

Following are reproduced two papers prepared by their authors for presentation before the Retail Hardware Merchants Association at Minot, North Dakota. The first, "White Lead: Its Advantages as a Paint Pigment," by G. W. Thompson, chemist of the National Lead Company, was read at the meeting. The second, "Fire Process Pigments," by Louis S. Hughes, chief chemist of the Picher Lead Co., was not presented owing to the illness of Mr. Hughes.

White Lead: Its Advantages as a Paint Pigment

At the recent convention of the North Dakota Retail Hardware Association, held at Minot, N. D., the following paper was read, written by G. W. Thompson, chemist of the National Lead Company:—

In addressing the members of the North Dakota Retail Hardware Association, in this their annual convention, on the subject assigned to me, namely, "White Lead: Its Advantages as a Paint Pigment," I must explain that it is not my intention or purpose to make a special plea in behalf of white lead. It would not be fair to the North Dakota Retail Hardware Association to come before them as a special advocate and partisan of any material which they as individuals may be asked to handle. It is my purpose to present to you such a statement of facts and information as I may possess as will enable you to understand clearly what white lead really is and what it can reasonably be expected to accomplish. It would seem to me that all that anybody interested in an honest manufacturing business should ask would be that he be given a fair hearing, without any attempt to cloud the truth or dress it in any fanciful clothing.

North Dakota has the good fortune of having successfully adopted, and successfully enforced, measures which result in the sale in that State of pure medicines, pure foods and pure paints. In this North Dakota has taken the lead, and we may feel assured that the people of the other States are glad to know that you have done so much for the honest manufacture and sale of merchandise within your borders. Not merely has North Dakota passed laws, but these laws have been enforced, and enforced fairly, with a due regard for the interests of the people of the State. If the spirit in which a law is enforced is a fair and equitable spirit, defects which may exist in that law may at times be overcome. In North Dakota the administration of these pure commodity laws has fortunately devolved upon a man who has in every case sought to carry them out in a spirit of fairness toward all concerned.

White lead is a paint pigment, and as a paint pigment it has been used since the beginning of the Christian era. The Romans called it "ceruse," and descriptions of its manufacture are found in ancient writings suggestive of modern practice, this white lead containing acetate of lead, showing that even with the Romans its method of manufacture was not different in principle from that which obtains to-day. We speak of the Dutch as having been the originators of the process by which most white lead is made to-day. The indications are that the Dutch obtained this process from the Venetians, with whom they had intimate trade relations, who, with the Genoese, dominated the seas toward the end of the first half of the Christian era, and whose trade reached to every part of the world as it was known then. The Dutch adopted the process, and are justly entitled to the credit of having formulated the method by which Dutch process white lead is manufactured to-day.

We have spoken of white lead as a pigment. By this we would explain that all paints, properly so called, are mixtures of a liquid or vehicle and solid particles which we call the pigment. White lead is a chemical compound, and when manufactured with care should contain about 69 per cent. of carbonate of lead and 31 per cent. of hydrate of lead, combined in a chemical union.

Mr. Thompson next described the old Dutch process of making white lead at some length, after which he went on as follows:—

Two processes exist for putting the finely ground white lead into merchantable shape:—One is to pump the pulp into drying pans and when dry to mix and grind it with oil, and the other is to mix the white lead pulp directly with oil in mixers of special design, by which mixing white lead in oil paste is formed and the water eliminated—in both cases forming the white lead in oil paste of commerce.

In order to judge fairly and to have a reasonably clear understanding of the merits of white lead as a paint pigment, it is necessary that we should discuss briefly the general subject of paints. Paint may be described as a mixture of solid particles with a liquid vehicle, which can be spread out on a surface by means of a brush or other instrument, whereby the surface is decorated and protected. A paint so applied should, after a reasonable exposure to the air, become changed into a more or less hard and elastic film. This change is due to the oxidation of the vehicle, whereby it is changed into a solid, elastic substance, binding the particles of pigment together. Such a paint film when exposed to the weather has considerable durability, and in so far as it is durable it protects the surface to which it is applied.

Students of paint have entered into very learned discussion as to whether in a paint the pigment protects the vehicle, or whether the vehicle is the life of the paint. To my mind, in a properly constituted paint both the vehicle and the pigment are of equal importance. All discussion as to their relative values are as useless as the discussion as to whether the husband or wife is the more important member of the human family.

There is, generally speaking, but one paint vehicle, and that is linseed oil. There are other materials used with linseed oil in paints, such as turpentine and benzine, but these can be considered nothing more than auxiliators, as they evaporate entirely after the paint has been applied and simply enable the painter to get more nearly the results he desires. Linseed oil is to-day the paint vehicle, and while lots of attempts have been made to prepare other vehicles, nothing worth considering in a commercial sense has yet made its appearance. Starting then with linseed oil as the paint vehicle which we are compelled to use, and which we are fortunate in being able to use, the question arises:—What pigment is there which by itself can be used with linseed oil to form a good paint without the addition of any auxiliator? The answer is:—That of white pigments, white lead is the only pigment which has been successfully used in conjunction with linseed oil alone. This is not a theoretical statement, but is a plain fact. I do not mean to say that some painter has not at some time mixed zinc oxide and linseed oil without other addition and applied it—but that such a practice and such an application have not been successful commercially. Nor do I say that sublimed lead has not been mixed directly with linseed oil alone and applied as a paint by some painter—but simply that if this has been done it has not continuously been done in a commercial way and so as to meet general painting requirements. The same is true in regard to lithopone, an admirable pigment in its way, but one that has not as yet been used alone with linseed oil in the production of a commercial paint, but whose use has been principally in connection with varnishes in the production of enamel paints. And we do not say that if anybody has been so foolish as to mix barytes alone with linseed oil he may not have applied this to some surface—but we do say that if anybody has done this he has not been successful in any attempt which he may have made to persuade the public into adopting his plan as a commercial proposition. And what is true of barytes is true of sulphate of lime or gypsum; is true of carbonate of lime or whiting; is true of silica, silicate of magnesia, etc. The fact remains that, as we have stated, no white pigment other than white lead has been mixed with linseed oil alone to make a successful commercial paint. By way of illustration it may be stated without fear of contradiction that zinc oxide is not successfully used alone with linseed oil for general painting purposes; for the reason that zinc oxide when thinned with linseed oil to a consistency proper for painting takes so much oil that when applied to a surface the particles of zinc are so far separated that they have lost considerably their covering or hiding power. On the other hand, when thinned to a consistency proper for painting, white lead has a covering or hiding power unequaled by any other white pigment. When we speak of white lead as being the only white pigment which has been successfully used in conjunction with linseed oil alone as a paint, we have to bear in mind that most paint is applied with a brush and most paint has for its purpose the hiding of the surface painted. What is wanted, therefore, in a paint that is applied by the brush is that when applied the brush marks shall flow out and disappear, leaving an even surface. This also is a quality which is possessed only by white lead among the white pigments, provided of course that they are used alone for the purpose of hiding the surface to which they are applied.

In this general connection permit me to say:—There are materials that have no appreciable hiding power that are used in paints. These materials, such as barytes, silica, china clay, whiting and gypsum, are sometimes added to paints in much the same way as turpentine is sometimes added—as auxiliators. White lead is the only commercial white pigment possessing covering power that when mixed with linseed oil does not require the addition of an auxiliator such as turpentine, or an auxiliator such as barytes. The addition of turpentine might be justified, as it is volatile, but barytes is non-volatile and justification is doubtful. Statements have been made as to the advantage of adding to white lead pigments, so called, of one kind or another. Claims have been made that the addition of these inert pigments does not injuriously affect the covering power of white lead. These statements are like a great many others that have been made on the paint question—untrue, because they are only partly true. It is true that the addition of an inert pigment does not decrease the covering power of white lead, but the substitution of an inert pigment for white lead in a paint does decrease its covering power. Thus, if you make up two gallons of paint, one gallon of white lead and linseed oil, and the other with the same amount of linseed oil with barytes added in place of a portion of white lead, the covering power of the paint in which the barytes was substituted will be found deficient as compared with the gallon of straight white lead and linseed oil paint. On the other hand, if you have two gallons of paint, each containing the same amount of linseed oil and white lead, and you add to one of these gallons a portion of dry barytes, the covering power of the mixture to which you have added the barytes will be greater than that to which no barytes has been added. Of course the addition of a dry pigment in this way would necessitate the addition of more oil in order to make the paint suitable for application; in which case, of course, you have an addition of not merely barytes, but also of linseed oil, and if the oil is added to get a consistency proper for painting you have in effect not an addition of barytes, but a substitution, with an actual reduction in covering power. This has been actually demonstrated. What we have said in regard to barytes applies also to the other so called inert pigments mentioned above, that is, whiting, sulphate of lime, silica, etc.

Straight white lead and linseed oil paint properly applied to a surface will show no brush marks when it is dry. This is because there is practically no chemical reaction between the white lead and linseed oil, with the result of a thickened mixture; and, furthermore, because the linseed oil, on its oxidation upon exposure to the air, becomes at first more limpid, especially the more it is brushed, allowing all brush marks to flow. Zinc oxide, unfortunately, cannot be applied when mixed with linseed oil alone so as to obtain a reasonable degree of covering power without showing the brush marks. We are not prepared to say that sublimed lead or lithopone may not be mixed with linseed oil and applied to a surface without showing brush marks. With zinc oxide, however, we have a pigment that is so active chemically that it enters into a chemical combination with the linseed oil, with the result that the viscosity is increased and the flowing power of the oil is very much reduced. We are willing to admit that if barytes is mixed alone with linseed oil and applied to a painted surface the brush marks will flow out; so also will the barytes, leaving streaks and streams where it has flowed. This is also true of whiting, sulphate of lime, etc.

Not only does white lead mix with linseed oil so that the brush marks flow out and a good, smooth surface is obtained, but it also gives a white paint of the greatest possible covering or hiding power. A great deal has been written on the subject of the relative hiding or covering power of various white pigments, but a great deal of confusion has usually entered into most of these discussions. If we are to compare two paints for hiding or covering power, let us bear in mind that these two paints may work entirely different as to the amounts that can be put on a certain definite surface in the hands of an intelligent painter. Thus on very careful tests made by a very competent man I have found that one paint, applied to a surface of about 200 square feet, spread at the rate of about 1,000 square feet to the gallon; whereas another paint applied by the same man spread at the rate of 600 square feet to the gallon. From this it will be seen that the paint which only spread 600 square feet to the gallon would give a paint film very nearly twice as thick as that which spread at 1,000 square feet to the gallon, and consequently should have, other things being equal, a covering or hiding power nearly twice as great. It is of the utmost importance, therefore, in comparing the covering or hiding power of paints that they be spread at the same rate; or, if not at the same rate, then it should be clearly explained what the rates were at which they were spread. Now we have no hesitancy in saying that white lead is the only commercially successful white pigment which when mixed with linseed oil to a consistency proper for painting, or to the consistency where the brush marks flow out, has a high and satisfactory covering or hiding power. Thus zinc oxide when mixed with linseed oil so as to have a covering power equal to white lead and spread at the same rate cannot be applied to a surface so as to produce a satisfactory coating. Sublimed lead has the same general effect as zinc oxide, though to a less degree.

We have up to this point considered certain important and peculiar qualities which white lead possesses, which may be summed up in this statement:—That white lead when mixed with linseed oil alone to a consistency proper for painting has a maximum covering power, requiring no addition of turpentine or other volatile thinner and no addition of barytes or other inert pigment in order to obtain this maximum covering power, or in order to obtain a smooth, even surface free from brush marks or laps.

Let us consider another peculiar quality which white lead possesses. It is impossible to prepare a paint suitable for every condition of outside exposure such as obtains in house painting. Every kind of wood and every kind of exposure requires special study and treatment. Some parts of a house are exposed to the direct rays of the sun and others are protected by the shade of trees. In order to get good results the paint applied to that side of the house which is exposed to the sun should contain more oil than that side of the house protected by trees. The reason for this is that the side of the house exposed to the sun is more absorbent than the side protected by the shade of the trees. Furthermore, it is more desirable where the side of the house is protected by shade to have a harder film so that pollen and organic matter from the trees will not settle into the paint and discolor it. Now white lead can be mixed with linseed oil according to different formulas with comparatively little effect on the ease with which it can be spread over and applied to a surface to be painted. White lead paste can be mixed with linseed oil on the formula of four gallons of linseed oil to the hundred pounds, or on the formula of five gallons of linseed oil to the hundred pounds, as the condition of a surface may require, and the painter will find comparatively little difference in the ease with which these two paints can be applied. This remarkable quality is not possessed by any other pigment that we know of, and explains the wide range within which the painter can handle a paint, the principal ingredient of which is white lead. It is generally admitted that the best results are obtained by the painter when he uses a good old-fashioned round brush, because in using that brush he must have a good strong arm and wrist capable of pressing the paint into every part of the surface painted. He works the brush back and forth, not too much, but just enough to get good results. With such a brush in his hand the well-equipped painter can apply a white lead paint under the greatest variety of conditions. With a flat brush he cannot do as good work; and we are free to admit that if a paint is to be applied as a wash and not to be well brushed in, no regard being paid to durability, practically any old thing will form a suitable pigment. The good painter knows the working qualities of white lead. He knows that a small amount of white lead paint, even if mixed comparatively stiff, can be brushed out by him and into every crevice of the surface with the old round brush, and that he will obtain a nice, smooth and well-finished coating; and among white

paints this can be done with white lead only, or a white or nearly white paint in which the principal pigment constituent is white lead.

Now we come to perhaps the most important quality to be considered in connection with the paint problem; that is, the durability of the paint after being applied and the protection which it afford, to the surface painted. In considering this question let us not think that there is anything which is not perishable; even gold, silver, platinum and precious stones slowly wear away and are to a greater or less degree affected by that almost universal solvent—water. Paints decay in the same way that iron rusts and wood rots, and when we consider that most paints applied to the outside of houses are hardly more than one two-hundredths of an inch in thickness it is really astonishing that they have as great a protective power as we find them to possess. Now, this question of the durability of paint is a very large one, and one that can be gone into here only along general lines. If we were to ask for an ideal paint we would not ask for one that would not perish, for that would be to ask for an impossibility; but we would ask for a paint that would wear away gradually and after a given time permit the repainting of the surface without burning the old paint off or removing it by chemical means and giving a painted surface in all respects equal to the original work when first painting was done. Not merely must the paint films on the new work adhere closely to the surface painted, but when repainting is done there must be no danger that the future coats of paint will peel or flake and leave a roughened and uneven surface—only to be remedied by the burning off of the entire paint. It makes comparatively little difference as to the pacticular way in which paint decays, whether it be by the gradual disintegration of the oil, leaving the pigment on the surface in a more or less powdery condition, or where the pigment enters into combination with the oil, producing more or less soluble compounds which dissolve as soaps in the rain and moisture to which they are subjected. The important question is, Will the paint adhere to the surface painted during the lifetime of the building? Now, while as a matter of fact, paint decay takes place in several ways, in substance all real decay is simply due to the disintegration and destruction of the oil, which is the binding material. With some paints when this decay takes place the pigment leaves the surface also, and all of the surface becomes practically denuded. With other paints when the oil goes the pigment stays behind. When this latter condition arises we have what is called "chalking." This is the way in which white lead paint decays. The binding material becomes destroyed, but the pigment remains, and to many the fact that white lead chalks has been considered an evil, whereas if the pigment washed away with the oil the decay of the paint would not be so apparent. It would appear, however, that this failure of white lead to wash off with the decay of the vehicle should be considered an advantage rather than a disadvantage, for it must act to at least a small degree to protect the paint underneath. But there is another way in which paint goes, and that is by scaling; and scaling is the worst form of paint decay, if it can be properly called decay, when the paint bodily leaves the surface to which it is applied. Scaling is occasioned by the paint film becoming disengaged from the surface, either because moisture has worked through under the coat of paint or because on repainting the oil used has weakened the bond between the oil paint and the surface painted. With white lead scaling, properly speaking, never occurs, but even with white lead a kind of peeling sometimes makes its appearance when much moisture has worked through the boards from the back. With paints containing much zinc the elasticity of the film is very low, it being hard and becoming harder and more brittle the older it is. A brittle coat cannot conform to the contractions and expansions of a surface as readily as an elastic coat can, and for this reason any loosening of the bond between the paint film and the surface to which it is applied is dangerous in proportion to the brittleness of the film.

We have no hesitancy in affirming that a pure white lead paint or paint composed principally of white lead with other pigments added only for tinting purposes will wear uniformly and evenly so as to present the very best foundation for repainting.

From many hundreds of experiments which I have made it has been demonstrated that a hard priming coat gives the best results, and that when a soft priming coat is used, the body and finishing coats usually being relatively harder, will on drying check, or alligator. It is for this reason that ocher primings should be condemned and that some turpentine is frequently recommended, even in lead primings. It is generally admitted, we believe, that at least for priming purposes white lead paint gives the best results, and there is no one that seriously advocates that zinc alone should be used in priming coats where its deficiency in body or covering power would not be a disadvantage—all this, apparently, from the binding or adhering quality which white lead priming paint possesses to such a remarkable degree and which zinc lacks. If, then, white lead produces such an excellent priming coat it would readily be seen that the same advantage obtains when old white lead paint is repainted, for the old white lead paint becomes practically the priming for the repainting.

A great deal has been written as to the chemical action between pigments and the oil or vehicle with which they are mixed, and many writers have attacked white lead on the assumed ground that it is an active pigment combining chemically with the oil with which it is mixed. Undoubtedly there are many authorities for this opinion, but, unfortunately, an examination of these authorities fails to disclose any positive evidence that there is a chemical union between the white lead and the linseed oil. My own experience would indicate to my mind that white lead is, relatively speaking, a very inactive pigment, and that there is practically no chemical union between it and the linseed oil with which it is mixed when applied as a paint. It is true that white lead adds to the drying properties of the linseed oil, and when we realize that the maximum efficiency in the drying of linseed oil is obtained by the addition to the oil of less than half of 1 per cent. of soluble lead compounds (if lead alone is used) it can readily be seen that only a minute fraction of the white lead present in a pure white lead paint need combine with the linseed oil in order to give it a rapid drying property. On the other hand, zinc oxide is perhaps the most active chemically of all pigments. So much so that white lead can be mixed with oleic acid in much the same proportions as it can be mixed with linseed oil, zinc oxide, immediately on mixing with oleic acid, sets to a hard cement. Furthermore, grinders of zinc have to be very careful that the linseed oil they use contains a low percentage of free fatty acids, while no such problem confronts the grinders of white lead. It is not generally known that some of the compounds formed by the union of zinc oxide with linseed oil are soluble in water. I do not refer to the possible presence of sulphate of zinc in the oxide of zinc used, but to zinc soaps soluble in water which are formed in zinc paints by the union of the zinc oxide with the fatty acids of the oil and which are dissolved out when paints containing zinc are washed with water. The tremendous importance of this fact is evident when we realize that it explains to some extent the lack of adherence possessed by paint films containing much zinc to the surfaces to which they are applied.

In the statements referred to, to the effect that white lead combines with the oil in paints, it has been said that the evils resulting from this combination—that is, paint decay—can be reduced by adding to the white lead paint an inert pigment, such as barytes. This statement is very like that to which we have already referred, to the effect that the barytes can be added to the white lead paint without impairing its covering or hiding power. Both statements are untrue; first in fact, and second in using the word "adding" when the word "substituting" should be used if the statement is to have any meaning to an intelligent person. It might be found true that the addition of barytes to a white lead paint increased its durability, but so also it might be true that the addition of more white lead to a white lead paint increased its durability. Both of these statements simply mean that under the conditions in which the tests were conducted any increase in the percentage of pigment would, increase the durability of the paint film by increasing the thickness (consistency) of the paint and consequently the thickness of the paint film, and also increasing its impermeability. The fact of it is that the addition of barytes is unnecessary to prevent the chemical combination between the white lead and the linseed oil, and numerous experiments which I have made demonstrate beyond question that the substitution of barytes or any other pigment auxiliator in white lead paint does not increase its durability. Now, the durability of white lead paints depends much upon whether the paint is to be pure white or whether it is to be tinted. It must be generally admitted that all white paints decay more rapidly than colored paints, especially those colored paints which are characterized as warm in tone. There is some doubt as to the cause for the more rapid decay of all pure white or nearly white paints, but there seems to be a well-grounded belief that these paints absorb the destructive heat rays of the sun, whereas the warmer paints reflect or radiate these heat rays.

As bearing upon this discussion of the chemical changes resulting from the action of a pigment upon the oil, it is somewhat amusing to note the claims of some manufacturers that they add carbonate of lime to their paints for the purpose of neutralizing acid, as though the zinc oxide in the paints were not a more efficient neutralizer than carbonate of lime, and as though even white lead would not neutralize any acid that might be formed without the need of lime.

So far we have spoken principally of white lead as a paint pigment by itself. Inasmuch, however, as most paints are tinted, it might seem a weak argument in favor of white lead that we have simply shown that it is the only white pigment that will make a good paint when mixed with linseed oil alone, without the addition of solid or volatile auxiliators. But that this argument is not weak we will show in connection with tinted paints.

A large proportion of colored paints consist of a white pigment to which has been added a tinting material. The very best practice has established the rule that these tinting materials should be as fine as possible in order that as small a percentage as may be should be added, and in order that clear tints should be obtained. It is not practicable in many paints to have the pigment homogeneous, as is the case with white lead and certain red and black pigments. Most other paints have a white base to which the tinting materials referred to are added. The practical advantage to the painter of having a uniform white base to which to add his tinting materials is almost self-evident, as this white base is something which he as a painter is thoroughly familiar with, and he knows just what can be done with it, whether used pure or tinted. It is quite a common practice for the salesman in the exploitation of his favorite commodity to preach the mysterious merits of the secret which his firm alone possesses for producing a product superior to that of any one else. With all due respect to the paint manufacturer and grinder, it is my candid opinion that when he tells you that he, the grinder, is better qualified to mix the materials which enter into the paint than the painter, he is simply throwing dust in his eyes and in most cases talking buncombe. The operation of preparing a mixed paint for ordinary painting use is comparatively simple. All that the ordinary painter needs for a large part of his painting work is a pure white lead base and a limited palette, consisting of, say, six standard tinting materials, with the necessary oil dryer, etc., and from these he can make practically all the ordinary tinted paints that are needed for house painting. In his limited palette he would have lampblack, yellow ocher, Venetian red, chrome green, chrome yellow and Prussian blue. Paint grinders publish elaborate cards showing a great variety and an elaborate list of tints which they sell in the ready mixed form. A large proportion of these tints are but slight modifications of each other, and in most cases serve to bewilder rather than help the purchaser. Many of these tints have been made up for one customer only, or to meet the fad of some paint designer, and have then been carried on the list with little hope of future demand being made for them. With white lead and the six tinting materials we have mentioned at least twenty standard and well-known tints can be made, and in addition to these an infinite variety of modifications to meet the desires of the active and ambitious creator of tints. This is not possible, however, unless we have to start with a uniform white base on which to build, and this uniform white base is only to be found at present in the white lead of commerce.

Our line of argument has been that white lead is the only single pigment which mixes with linseed oil alone to form a satisfactory paint and to produce a base suitable for the production of satisfactory tints by the intelligent painter. Those who advocate combination whites assert that their products will do what white lead does, that their products are satisfactory substitutes for white lead. Perhaps we should be satisfied when we think that "imitation is the sincerest flattery!" The difficulty which confronts us in accepting the claims of those who advocate combination whites is that no two of them agree as to which combination forms the best substitute. Some tell you that a combination of zinc and lead is better than lead alone, but these differ as to the relative proportions of zinc and lead that should be used. Others say that a good substitute is obtained by the substitution of barytes and zinc for some or all of the white lead, but of the combinations of barytes, white lead and zinc the various percentage formulas which are advocated are as numerous as the hairs of one's head. As between sublimed lead and zinc as a partial substitute for white lead, even the best lights of the grinding fraternity are unable to agree. And so it is with all of these substitutes for white lead. The grinders differ so materially from each other in their formulas that one is led sometimes to ask whether really the question of the value of the substitute to the painter is not usually with them of secondary consideration, or whether the primary consideration is not the cost of the materials used. Not merely do paint grinders differ among themselves, but they differ from time to time so that once, when an enterprising paint manufacturer published the analyses of his competitors' products, he was pooh-poohed and informed that the manufacturers whose products had been analyzed could change their formulas as often as need be so as to render the analyses of no value.

I think, therefore, that we may assume that the painter or the purchaser of paint is right when he asks for a uniform material—a material such as white lead, the purity of which can be easily determined by a simple blow-pipe test; and if there is merit in any of the various combination substitutes for white lead the particular formulas having merit should long since have demonstrated this merit. Perhaps the future may furnish us with a formla of some substitute for white lead. We do not hope for much success in this line, but if success come it will be due to the excellent work which Professor Ladd has done and which we understand he has in contemplation.

What we have said in regard to substitutes for white lead must not be considered a reflection upon any paint which is sold because of its peculiar merit for some special purpose. Most of the substitutes for white lead, however, are not sold for special purposes, but for general painting purposes and are supposed to meet the infinite variety of conditions which white lead paint has to meet.

Fire Process Pigments.

BY LOUIS L. HUGHES, CHIEF CHEMIST PICHER LEAD CO.

To undertake a description of the evolution of paints would be to require a thorough canvass of anthropology, archaeology and social history, for their use was extensive even among the most primitive races. Fortunately no such exhaustive and exhausting discussion is necessary, as we are concerned only with the last few steps in this evolution, which, like most of the vital improvements in the various branches of technology, have taken place during recent years.

Omitting colored plasters and considering oil paints only, there never was any imperative need of paint until increasing cost of labor and materials brought about the modern construction of buildings with walls so thin they could not resist indefinitely the dstructive action of the weather. Up to that time the use of paints was chiefly for ornamental purposes. Later the introduction of iron and steel bridges and frames and the use of these metals in ships developed a demand for paints which would protect, and in response to this demand the improvement of paints took rapid strides.

Inasmuch as the use of colored paints is limited we can perhaps obtain a clearer insight into the problems involved by considering only white paints, or more properly white pigments, because there is no real need of discussing "vehicles" (that is, the liquids in which the pigments are ground). We have at present only one good vehicle for general use: linseed oil, and it is not probable that any reliable substitute will be found for a long while as the chemical difficulties presented by this problem are tremendous.

In recent years it has become a widely accepted view that chemical stability and fineness of division are the main factors essential in a pigment, although, to these might properly be added "opacity," because it is doubtful whether a paint lacking in "body" or hiding power could be brought into use, no matter what its protective efficiency might be.

Chemical Stability. — The desirability of chemical stability in a pigment is not universally admitted and this is quite natural because a pigment which attacks the oil and makes a soap, works somewhat easier under the brush and shows less tendency to run than an inert pigment. This ease of application is, however, bought at the expense of durability, the mixture of soap and oil being non-homogeneous and wearing unequally.

A perfect example of the almost indestructible nature of a paint made from an excessively fine and absolutely inert pigment mixed with good oil is found in old sign posts lettered with lampblack upon a ground of corroded white lead, the latter being a pigment which always forms some soap with the oil. In many cases after the corroded white lead has entirely disappeared and the wood beneath it rotted deeply, the lampblack letters stand out above this rotten surface as if they had been carved in relief. In other words, the lampblack, which is probably the most stable substance (chemically) used in paints, and possibly the most finely divided, has maintained a good protective surface long after the chemically active corroded white lead has completely disappeared.

Another instance of the evil effects of chemical combination between the oil and the pigment is found in the splitting off of paints made from straight zinc oxide. This action is due to the fact that zinc oxide forms with linseed oil a hard, brittle, enamel like surface not sufficiently elastic to expand and contract under weather changes in unison with the surface to which it is applied. It therefore tears loose from the wood of a house, leaving ragged spots over which it is hard to repaint.

Still another example of chemical activity is the "checking" or "alligatoring" of straight corroded white lead coats. The soap first formed from a part of the oil gradually shrinks with age and so splits into little squares exactly as the muddy bottom of a pond breaks up when it goes dry.

Fineness of Division.—No matter how finely a substance may be ground, when placed under the microscope, it appears coarse compared with materials which are produced as smoke or fume and are packed or ground with oil without any preliminary grinding to render them fine.

We have seen the behavior of lampblack (which is simply smoke) and contrasted it with the comparatively coarse and unstable corroded white lead, and we will next take up two other kinds of smoke or fume pigments which together I shall call "Fire Process Pigments." These are zinc oxide and sublimed white lead.

Both are made by closely analogous processes, the former sometimes by burning metallic zinc and sometimes by burning zinc ores in an open fire from which the fume is drawn into flue and settling chambers by a suction fan and finally deposited in cloth screens which allow the gases to pass through and retain the white zinc oxide.

Sublimed white lead is made in much the same way except that only one kind of ore is used: the native sulphide of lead or galena. The fume is a basic sulphate of lead, quite different in all respects from the neutral sulphate of lead obtained by precipitation. The fume is highly opaque, chemically stable and exceedingly fine. An idea of its fineness can be obtained from the fact that it is drawn by a very moderate suction a thousand feet before it is collected. Of course nothing but the very finest kind of material could float this far without settling.

We now come after this somewhat tedious preamble to the real point at issue: what pigment or pigments are the best and are these best used alone or in combination?

If we admit the necessity of chemical stability to prevent destructive action on the oil we must give a demerit mark to both zinc oxide and corroded white lead, and we still have to consider the claims to stability of sublimed white lead. We really need no discussion of other pigments like white earthy minerals or badly made compound pigments, for these are used in paints sometimes for cheapness, and perhaps more often to dilute the real paint pigment to avoid some objectionable trait which is inherent in it. For brevity, I will mention only one such use of these materials which is perfectly legitimate. This is the employment of pulverized asbestos, or sometimes silica, to prevent the separation of liquid and pigment in mixed paints.

The following comparative tests will indicate the relative chemical stability of the three pigments, and these tests are really indicative of the behavior of the pigments, because the changes of atmospheric conditions, the action of coal smoke and foul gases subject a paint coat to very hard trials, and if we consider the fact that a paint coat is only about 1-400 of an inch thick, we can see that it does not have to yield very much to the weather attack to be destroyed.

These tests, which anyone can perform, are, First:—Pour a little acetic acid (almost any acid will do, and it may be used strong or weak) upon each of the pigments.

The zinc oxide dissolves; the corroded lead bubbles (this shows destruction of the carbonate) and finally dissolves; the sublimed lead shows no change which the eye can detect.

Second.—Brush three streaks, one of each paint in oil, upon a board or glass plate, and expose them to hydrogen sulphide gas. This is the active agent in sewer gas, and there is a great deal of it in city air. The zinc oxide is apparently unchanged (really it changes to zinc sulphide, which is white, but not a durable paint); the corroded lead turns black; the sublimed white lead slightly darkens, but after a little turns white again.

Third.—Place a little of each pigment in an iron spoon and heat it red hot. The corroded lead first changes to brown litharge and then is changed to metallic lead. The zinc and sublimed white lead both turn somewhat yellow and afterward turn white again.

It will be seen that both the fire process paints withstand these tests much better than the corroded white lead; indeed, the corroded lead is so weak chemically that almost any active agent destroys it, and under service conditions even the fact of a manure pile being in the neighborhood will cause its discoloration. The zinc oxide fails in the first test and partially in the second; the sublimed white lead shows by far the greatest stability of the three pigments.

While in fineness the microscope shows corroded lead to be quite coarse compared to the other two, and it reveals a serious fault in zinc oxide. Its particles are not opaque, and this accounts for the unfortunate transparency of straight zinc paints. The sublimed lead shows itself to be intensely opaque and excessively fine, and this, taken in connection with the chemical stability above shown, proves it to be most nearly of the character of that most durable of all pigments (which, by the way, might itself be truly called a fire process pigment), lampblack.

There has been much discussion as to the merit of chemical inertness on the part of a pigment in the paint coat, and extreme views have been expressed both for and against. On one hand the extremists have held that reactivity of the pigment was so objectionable that pigments should contain the fewest possible number of chemical compounds to avoid interaction between the compounds of the pigment. Others have opposed the introduction of earth carbonates as likely to cause saponification either by direct decomposition of the carbonate by the free fatty acids of oil, or by reaction with the glycerides themselves.

On the other hand, it has been claimed that without some action between the vehicle and the pigment there was insufficient emulsifying action to permit of a proper binding between vehicle and pigment, and, also, that saponification tended to avoid splitting or flaking of the coat.

Inasmuch as the bases of fire process paints are all, under certain conditions, capable of saponifying action with oils, the question of activity should be carefully considered.

Difficulty is met with at the start in examination of paint coats to decide as to saponification, because different bases produce widely differing effects—zinc, a hard, lustrous and brittle coat; lead (as may be seen by examination of any weathered paint made from corroded lead), a dull, easily crumbled, dry layer which is split in tiny squares by shrinkage of the saponified coat. Other bases, such as lime, produce still other effects, but as these do not belong to fire process pigments they need not be considered here.

In addition to chemical action proper within the paint coat a physical factor must sometimes be recognized: the action of hydroscopic or water-absorbing ingredients. Zinc sulphate, an almost invariable ingredient of leaded zincs and zinc oxides made from sulphides, sometimes causes startling changes, for which the painter is usually blamed.

Considering simplified conditions, such as the action of one given ingredient upon the oil, the chemical action of the coat may be fairly predicated.

Saponification is sure with free lead oxide, and, as is well known, with corroded lead; this latter action being probably caused by decomposition of the basic carbonate in contact with the oil by acid action of surrounding gases. This at least would seem to be the explanation demanded by the destruction of the oil under weathering, while no such action is apparent when the paint is sheltered.

Zinc oxide, especially when contaminated with sulphur dioxide and in the presence of rosin, is vigorously and destructively active.

Salts of strong acids, such as sulphates, are not subject to decomposition by the oil nor by intraction with other pigments unless the reacting pigment is an oxide or hydrate of a stronger base and an appreciable amount of water is present.

As to the advantage or disadvantage of chemical action in the coat, it may be clearly stated that anything more than fractional saponification is destructive, as the resultant mixture of soap, pigment and oil has neither the elasticity nor the coherence of oil dried without decomposition. A well ground paint made from an inert pigment of sufficient opacity and body will give longer service.

A curious claim has been advanced in support of pigments causing formation of lead soap: i.e., that the decomposition was necessary to insure a properly dry and chalky surface for repainting. The truth is the ideal surface for repainting is that left by weathering of paint in which the oil is not decomposed, and this latter paint, in which the oil dries by natural action, of course, lasts longer than that in which the oil is destroyed by internal action. "Oil is the life of a paint" and anything which decomposes it shortens the life of the coat.

Now for the second part of the question: "Is a pigment best used straight or in combination?" I have no hesitation in saying that a paint for general use should never be applied straight. It is true that under exceptional conditions a straight paint may be used with surprising success. I will cite one instance where almost everything was tried and every paint failed until straight barytes was used, but this only illustrates what exceptional conditions a paint may be required to meet, for barytes for general work can hardly be called a paint at all.

A paint sold for use by any one save a paint expert will yield a higher percentage of successful "jobs" if no one pigment is allowed to predominate. Such a paint may not, under exceptional conditions, wear quite so long, but paints should not be composed for the exceptional case, and in 90 cases out of 100 a well-mixed compound paint will outwear a straight paint.

I am not here to prescribe any formula, but only to emphasize the fact that fineness, opacity and durability (that is chemical stability) are necessary in the chief ingredient in a paint, and to show you the chief characteristics of the most important pigments of to-day.

It may be asked why corroded white lead ("Old Dutch Lead") is still extensively used, and used straight, if it has the evil properties which I have pointed out. The answer is very simple: during the centuries when this pigment was the only real white paint there was no need of durability, and it therefore came to be regarded as a standard. Inventions generally follow a demand for improvement, and it was only after modern construction supplied the demand for real paint protection that the fire process paints came into the field. Undoubtedly, also, paints generally had easier conditions to meet in the good old days than to-day, when in every town the air is charged by the active gases from coal. In the mild and equable climates where this paint gained its hold; that

is, in central Europe and England, even an unstable paint might give fair service, although in passing it might be mentioned that to-day corroded white lead is prohibited by law for public works in France, and, I believe, some other countries. We are mostly interested in American conditions, with a wide range of climatic change; from heat to intense cold and extensive changes in humidity. Here the fire process pigments have to a great extent displaced it, and, considering the short time they have been on the market, it is surprising they have so far advanced in public favor, for they had to contend against a fixed preference, gained, it is true, not by merit, but by long exemption from competition.

There is still, quite naturally, a popular idea that white lead made by the corrosion process, that is basic carbonate of lead, is par excellence the white paint, and that any other white pigment is an imitation or substitute for it. It has even been claimed that it is the only pigment which is generally applicable for use straight. In fact, about every possible claim is made for it. According to some authorities, it is of particular value because it forms a lead soap. According to others, its most striking value is that it does not act on the oil; in other words, that it does not form soap. Its fineness is praised by some and still others declare that it is desirable because it is partly composed of rather coarse crystals which build up a coat of requisite thickness. From these contrary declarations it would appear that the lead carbonate of commerce is a somewhat variable substance and investigation confirms this fact. Putting aside all considerations of detail for the moment and examining the undisputed facts we find that basic carbonate of lead is chemically unstable, as was indicated by the tests mentioned, and if we look thoroughly into the matter we will find that it is the most unstable pigment used in any paint. This declaration is startling, but strictly accurate. Indeed, I do not think any chemist will for one moment dispute it. Now we have seen the wearing ability displayed by a chemically stable substance of proper fineness, and on further comparing pigments we find that pigments seem to have value in proportion as they possess chemical stability or inertness. Thus red lead (stable) is good while litharge made of the same elements, but an active compound, will not do for a pigment. Red iron oxide (stable) is a durable paint, while the chemically active black oxide is not.

From this relation it would follow that a pigment should resist change: that is, possess stability. But it may be asked why, then, are not barytes and silica ideal pigments, and the answer is simple: if they could be produced in opaque and amorphous form they would be, but all our white mineral compounds either lack opacity or are somewhat crystalline; either of these characteristics being sufficient to prevent their use save as auxiliary pigments.

The paint-making art is in process of evolution. To the few natural pigments available and the artificial pigments made by antiquated and costly processes, of which "Old Dutch Lead" is undoubtedly the best, modern scientific research is continually adding compounds which are designed to possess the qualities which our ancestors lacked knowledge to secure in their products. The inventors of the old paints did the best they could, but they knew nothing of chemistry, and, also, they had no real need of durable paints, as I have pointed out.

To assume an attitude of ultra-conservatism and declare the old-fashioned products to possess every excellent feature, and to stigmatize honestly made products as adulterants, cheapeners or substitutes is not only intolerant but absurd.

Corroded white lead is a good paint, but paint makers know they can improve it by adding other pigments. Zinc oxide is an excellent pigment, but it gives best service when it is subordinate in amount to other pigments. Sublimed white lead was invented by a zinc oxide manufacturer as an improvement combining the fineness of zinc, the opacity of corroded white lead and possessing the further advantage of chemical stability. I could talk at some length on this pigment, but I shall not do so, lest it seem that I am here in an advertising capacity for my company. My intention has been simply to point out the principles involved in paint making and to describe the character of the chief pigments in use today.

In the present state of knowledge, any dogmatic statement of what pigments are of value and what are worthless or injurious is inadmissible. We know, it is true, the opacity, tinting value and general character of the ingredient, but we are far from being in a position justly to declare any pigment an "adulterant" when mixed with others, unless it is used in such proportion that action by it upon the oil can be seen to threaten decomposition of a considerable proportion of the vehicle.

This applies only to the pigment proper and not to active substances such as free acids, occluded gases or soluble salts like zinc sulphate, with which it may be contaminated. Such impurities may produce extensive action by contact action or by cyclic reaction throughout the entire mass of paint. Fortunately, the detection of such impurities is not a difficult matter.

In regard to the action of pigments proper. it may be fairly said that the tendency of modern painting is to employ mixtures of pigments of differing character, an excessively fine pigment being preferably mixed with a crystalline ingredient, a pigment of high specific gravity with a fibrous substance. And it is only just to remark that the efficiency of these admixtures bears little relation to their cost. The prevalent idea that a cheap pigment is employed necessarily for purposes of sophistication and can be declared a priori to be inferior to one made only of more expensive materials is by no means warranted.

To summarize:—

A pigment chemically active should be subordinate in amount to the inert pigments of the coat.

Active or water soluble chemicals contaminating a pigment are exceedingly dangerous.

The pigments employed in a mixed paint should be selected with the idea that the qualities of one should supplement the qualities of the others.

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Cochin		10⅝@10⅝
Corn		5.20@5.25
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Peanut, white		.55 @65
yellow		.50 @60
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Pine oil		.30 @30½
Tar oil, genuine distilled		.29 @29½
Rosin, first run		.27 @27¼
second run		.29 @29½
third run		.31 @31½
fourth run		.33 @33½
Rapeseed, in bls., burning		.73 @75
blown		.70 @72
refined		.68 @70

Animal and Fish Oils.

Cod, domestic, prime		.37 @38
Newfoundland		.40 @42
Degras, French	℔ lb.	2.30@2.65
English		2.35@2.60
German		2.40@2.65
American		2.15@2.25
French Moellen		4⅞@ 6⅜
French domestic Moellen		3⅞@ 4⅜
Herring	℔ gal.	—@—
Lard, extra prime winter		.75 @76
prime		.74 @75
off prime		.61 @66
Extra No. 1		.55 @56
No. 1		.49 @52
Menhaden, Northern		—@—
Southern, f. o. b. Baltimore		—@—
Brown, strained		.32 @33
Light, strained		.32 @33
Neatsfoot, 20 deg., cold test		.92 @94
30 deg., cold test		.83 @85
40 deg., cold test		.67 @69
Prime		.56 @57
Red, Elaine		.44 @46
Saponified	℔ lb.	6¾@ 6¾
Seal, bleached, refined	℔ gal.	—@—
Sea Elephant, natural winter		—@—
bleached, winter		—@—
Sod, American prime	℔ lb.	2¾@ 3⅛
English prime		3¼@ 4¼
Sperm, crude, f. o. b. New Bedford	℔ gal.	.59 @60
Natural, winter		.72 @73
Bleached, winter		.75 @76
Tallow, acidless		.64 @65
Prime		.60 @61
Whale, crude, f. o. b. New Bedford		.35 @36
Natural, winter		.46 @47
Bleached, winter		.48 @49
Extra, bleached, winter		.50 @51

Mineral Oils.

Black reduced, 29 gravity, 25@30 c. t.		11¼@12
29 gravity, 15 cold test		12½@13½
27 gravity, zero		.17 @18
Summer		11¼@12
Cylinder, light, filtered		.19 @20
Dark, filtered		16½@17½
Extra cold test		23½@24½
Dark, steam refined		.13 @14
Natural, Franklin, 32 gravity		11¼@16
Smith Ferry, 32@34 gravity		.9 @10½
West Virginia, 29 gravity		.20 @21
Neutral filtered lemon, 33@34 gravity		.16 @17
White, 33@34 gravity		24½@25½
32@34 gray, bloomless		15½@20
32 gray, wool grade		13½@14½
Paraffine, high viscosity		.23 @26
903-907 sp. gr		.14 @14½
903 sp. gr		.13 @13½
883 sp. gr		10¾@11¼
875 sp. gr		.10 @12½
865 sp. gr		.9 @ 9½
Red paraffine		.13 @14½
Spindle, No. 1, filtered		.16 @17
No. 1		.13 @14
No. 2		.12 @13
No. 3		.11 @12
No. 4		10½@11

Oil Cake, Meal, Etc.

City cake, domestic	℔ short ton.	27.00@27.50
Western, in bags	℔ short ton.	27.00@27.50
Cottonseed cake at Memphis	℔ short ton	—@—
at New Orleans	℔ long ton.	—@—
at Macon	℔ long ton.	—@20.00
at Dallas (loose)		17.50@18.50
Cottonseed meal at Macon	℔ short ton.	20.00@21.50
at New Orleans	℔ long ton.	—@—
at Dallas	℔ short ton.	19.50@20.25
Corn cake	℔ short ton.	25.00@25.25
meal	℔ short ton.	—@—

Wax, Lard, Tallow, Etc.

Paraffine wax, crude	℔ lb.	5¼@ 5½
refined, 120 m. p.		6¼@ 6¾
125 m. p.		6¼@ 6¾
130 m. p.		7⅛@ 7⅝
135 m. p.		8⅛@ 8⅝
140 m. p.		13½@14
Candles, adamantine, 6s, 16 ozs		9½@10
14 ozs		7⅝@ 9
paraffine, 4s, 6s and 12s		8¼@11
Candles, patent sperm, 4s and 6s		.38 @40
sperm, 4s and 6s		.33 @34
Stearic acid—		
Plain, 4s, 6s and 8s		11½@—
patent ends, 4s and 6s		12½@—
cartons, 6 lbs. each		12½@—
Lard, choice Western		9.10@—
city		8¼@ 8⅝
compounds		7¾@ 8¼
Stearine, lard		—@ 9¾
oleo		8¾@ 9
Tallow, prime city, in hhds		—@ 5⅝
edible		—@ 7
Grease, white		5½@ 5¾
yellow		—@ 5¼
house		5¼@ 5½
brown		4½@ 5
Stearic acid		.10 @13
Whalebone, Arctic, prime		4.75 @ 5.75
Northwest		4.25 @ 4.50
South Sea		4.00 @ 4.25

Naval Stores.

Spirits, turpentine, spot	℔ bbl.	69 @ 69½
Rosin, strained		4.80 @ —
Good, strained		4.80 @ —
D		4.90 @ —
E		4.95 @ 5.00
F		5.00 @ 5.05
G		5.05 @ 5.10
H		5.15 @ 5.20
I		5.40 @ —
K		5.75 @ 5.80
M		5.95 @ 5.00
N		6.05 @ —
Window glass		6.20 @ 6.25
W. W.		6.35 @ 6.40
Pitch		3.50 @ 3.55
Tar, kiln b't, oil bbls. of 50 gals.		6.50 @ 6.75
Tar, retort, oil bbls. of 50 gals		6.00 @ 6.50

Paints, Varnishes, Etc.

White Lead, Zincs, Etc.

White lead, American dry	℔ lb.	6¾@ 7
in oil		7⅛@ 7½
English in oil		9⅝@10
Litharge, American powdered		7¼@ 7¾
English glassmakers		8¼@ 8½
Red lead, foreign		8¼@8½
American		7½@ 7¾
English glassmakers		8¼@—
Orange mineral, American		8¾@ 9
English		.10 @12
French		10¾@12
German		8½@10
China, white		9¼@ 9½
Flake white		9¼@ 9¼
Cremnitz, white		.10 @12
Zinc, white, Paris G. S., 50 bbls.		11 less 4 ℔ ct
G. S., 25 bbls.		11 2 ℔ ct
G. S., 20 bbls.		11 1 ℔ ct
R. S., 50 bbls.		9¼ 4 ℔ ct
R. S., 25 bbls.		9¼ 2 ℔ ct
R. S., 10 bbls.		9¼ 1 ℔ ct
Antwerp, R. S., 50 bbls.		8¾ 4 ℔ ct
R. S., 25 bbls.		8¾ 2 ℔ ct
R. S., 10 bbls.		8¾ 1 ℔ ct
G. S., 50 bbls.		10¾ 4 ℔ ct
G. S., 25 bbls.		10¾ 2 ℔ ct
G. S., 10 bbls.		10¾ 1 ℔ ct
G. S. in poppy oil		13¼@13½
R. S. in poppy oil		11¾@12⅝
American extra dry		5⅝@ 5½
Florence Green Seal		8¼@ 8½
Florence Red Seal		7¼@ 7⅝
German Red Seal		7¼@ 7½
Green Seal		7¾@ 8

Dry Colors.

REDS.

Carmine, No. 40, bulk	℔ lb.	3.10 @ 3.25
Crocus martus, imported		2½@ 3¼
standard American		1 @ 2½
Indian red, standard American		3 @ 3¼
English		4½@ 6
Rose pink, American		8 @ 10½
English		8½@ 10
Tuscan red, English		7 @ 10
Turkey red, English		4 @ 10
Venetian red, English	℔ 100 lbs.	1.15 @ 1.75
American		50 @ 1.25
Vermilion, Imported Eng.	℔ lb.	65 @ 70
American quicksilver, bulk		65 @ —
bags		— @ 66
Chinese		90 @ 1.00
American		7 @ 25

BLACKS.

Bone	℔ lb.	⅛ @ 4
Carbon		6½@10
high grade		.18 @28
Drop, American		3½@ 8
English		5 @15
Ivory		.16 @20
Lamp, commercial		4 @ 6
refined		7 @15
calcined		9 @20
fine, spirit		.20 @35

BLUES.

Celestial	℔ lb.	4 @ 6
Chinese		.31 @33
Italian		.18 @25
Milori		.30 @—
Prussian		.29 @32
Prussian, foreign		.32 @36
Soluble		.31 @33
Ultramarine		4½@15

BROWNS.

Sienna, Italian, burnt and powdered	℔ lb.	3 @ 6
burnt, lump		1¼@ 3
raw, powdered		3 @ 7
raw, lump		1¼@ 3
American, burnt and powdered		1½@ 2
raw		1½@ 2
Spanish brown		½@ 1
Umber, Turkey, burnt and powdered		2 @ 3½
burnt, lumps, selected		3 @ 4½
raw and powdered		2½@ 3½
raw, lumps		3 @ 4½
American, burnt		1½@ 2
raw		1½@ 2
Vandyke brown		2½@ 3½
soluble		2¾@ 4

GREENS.

Chrome, chemically pure	℔ lb.	.17 @25
extra		.12 @15
super		8 @10
common		3½@ 7
Paris, in bulk (5 tons and over)		.26 @—

YELLOWS.

Chrome, chemically pure	℔ lb	12 @ 14
Ocher, French		1¼@ 2
Foreign, golden		3 @ 4
German		2¾@ 3
domestic	℔ ton.	8.50 @16.00
golden	℔ lb.	2½@ 3¼

Miscellaneous.

Barytes, prime white, foreign	℔ ton.	18.50 @20.50
foreign floated		.20.00 @22.00
domestic prime white		.17.00 @19.00
floated		.19.00 @20.00
off color		.13.00 @16.50
Blanc fixe, in bulk (orin'l cakes 1,000 lbs. each)	℔ ton.	40.50 @43.00
dry (in bbls., 600 lbs.)		2¾@ 3¼
Bronze powder	℔ lb.	45 @ 3.15
Chalk	℔ ton.	3.00 @ 3.25
Clay, China, imported		11.00 @17.50
domestic		8.00 @ 9.00
Coal tar, in oil bbls., 50 gls		4.40 @ 4.60
Cobalt, oxide	℔ lb.	2.50 @ 2.60
Feldspar	℔ ton.	10.00 @12.00
Fuller's earth, pow'd.	℔ 100 lbs.	80 @ 85
Lithopone		3¾@ 7
Marble flour	℔ ton.	9.00 @ 9.50
Manganese, car lots		25.00 @75.00
jobbing	℔ lb.	2¼@ 4
Magnesite, raw	℔ ton.	7.50 @ 8.00
calcined, pow'd	℔ lb.	1¾@ 2
Plaster of paris	℔ bbl.	1.35 @ 1.70
dentists'		1.50 @ 1.85
Pumice stone, orin'l cks	℔ lb.	2 @ 4
selected lumps in bbls		4½@ 6
powdered, pure, bbls		1½@ 2
Putty, com'l, bbls., tubs 100 lbs.		1.20 @ 1.45
pure, in do		1.50 @ 1.55
linseed oil, in do		1.75 @ 2.00
colored, in do		2.00 @ 2.05
white lead, in do		2.25 @ 3.00
com'l in 12½, 25, 50-lb. tins		1.50 @ 1.90
pure, in do		1.75 @ 1.80
linseed oil, in do		1.75 @ 2.00
colored, in do		2.30 @ 2.45
white lead, in do		2.55 @ 2.70
com'l in 1, 2, 3, 5-lb. tins		2.65 @ 2.85
pure, in do		2.30 @ 3.20
linseed oil, in do		2.60 @ 3.55
colored, in do		2.90 @ 3.80
white lead, in do		3.15 @ 4.05
com'l, in bladders		1.70 @ 1.85
pure, in do		2.05 @ 2.10
linseed, in do		2.35 @ 2.40
Rotten stone, orin'l casks	℔ lb.	4 @ 7½
selected lumps		5½@ 20
powdered, in bbls		2½@ 4
Soapstone, pow'd, in bags	℔ ton.	10.00 @12.00
Silex		12.00 @40.00
Smalt, German blue	℔ lb.	6 @ 10
super, black		4 @ 7
Talc, American	℔ ton.	15.00 @25.00
French		18.00 @25.00
Italian		25.00 @40.00
Terra alba, Am. No. 1	℔ 100 lbs.	75 @ 80
No. 2		60 @ 65
English		80 @ 1.00
French		90 @ 1.00
Whiting, commercial		43 @ 52
gilders'		55 @ 65
extra gilders'		60 @ 65
American Paris		64 @ 68
English cliffstone		73 @ 80

Glues.

Extra white	℔ lb.	18 @ 24
Medium white		14 @ 17
Cabinet		12 @ 15
Low grade		10 @ 12
Foot stock, white		12 @ 14
brown		9 @ 11
Common bone		7½@ 9
Irish		13 @ 16
French		10 @ 40
German hide		12 @ 18
common		10 @ 12
Fish, liquid (in bbls. 50 gal. each)	℔ gal.	55 @ 1.20

Varnish Gums.

Asphaltum, Barbadoes	℔ lb.	2½@ 4
Cuban		1¼@ 5½
Egyptian		—@14
Copal, Sierra Leone, cleaned		.64 @80
Zanzibar, pure white		.60 @64
thumb size		.42 @48
sorts		.55 @60
beans and pea		.30 @40
Manila, pale		14½@19
dark, hard		14 @15
bright amber		14 @15
standard sorts		9 @10
nubs, No. 1		—@ 8¼
nubs, No. 2		5¾@ 6
chips, No. 1		5¾@ 6
chips, No. 2		5¼@ 5½
Damar, Batavia		—@17
extra Singapore		.10 @10½
Singapore		.10 @—
Kauri, No. 1		.36 @40
No. 2		21½@24
No. 3		13½@16
Bright chips		.26 @30
Ordinary chips		.10 @23
B 1 superior		.25 @28
B 1 ordinary		.22 @23
B 2		12½@15
Brown chips, ordinary		7 @ 8
Brown chips, extra		.14 @19
Brown, dust		3¾@ 6½
White, dust		6 @12
Brown 3		8 @ 9
X		.40@—
XX		.45@—
XXX		.50@—
XXXX		.60@—
XXXXX		.80@—

WINDOW GLASS.

Eastern Price List.

AMERICAN WINDOW GLASS.

SINGLE.

United Inches.	AA	A	B
25	$32.00	$26.75	$25.50
34	33.50	28.00	26.75
40	36.00	30.00	28.00
50	37.50	31.75	29.50
54	38.75	32.75	36.00
60	40.00	34.75	31.00
70	42.75	38.50	33.75
80	48.75	44.50	38.50
84	52.00	47.50	41.75

DOUBLE.

United Inches.	AA	A	B
25	$42.75	$37.50	$35.50
34	46.75	41.50	38.75
40	52.00	54.50	41.50
50	56.00	49.50	46.00
54	57.50	50.75	46.75
60	58.75	52.00	47.50
70	62.75	56.00	50.75
80	68.00	61.50	55.50
84	69.50	62.75	56.75
90	73.50	66.75	61.50
94	74.75	68.00	62.75
100	88.00	80.00	74.75
105	94.75	86.75	80.00
110	105.50	97.50	90.75
115	118.75	108.00	101.50
120	140.00	126.75	120.00
125	153.50	140.25	133.50
130	167.00	153.75	147.00

An additional 10 per cent. will be charged for all glass more than 40 inches wide. All sizes over 52 inches in length, and not making more than 81 united inches, will be charged in the 84 united inches bracket. All glass 54 inches wide or wider, not making more than 116 united inches, will be charged in the 120 united inches bracket.

The jobbers' discounts in Greater New York are 90 and 10 per cent. on single and double. Outside, 90 and 5 and 90 and 10.

Western Price List.

AMERICAN WINDOW GLASS.

SINGLE.

United Inches	AA	A	B
25	$32.00	$26.75	$25.50
34	33.50	28.00	26.75
40	36.00	30.00	28.00
50	37.50	31.75	29.50
54	38.75	32.75	30.00
60	40.00	34.75	31.00
70	42.75	38.50	33.75
80	48.75	44.50	38.50
84	52.00	47.50	41.75

DOUBLE.

United Inches	AA	A	B
25	$42.75	$37.50	$35.50
34	46.75	41.50	38.75
40	52.00	45.50	41.50
50	56.00	49.50	46.00
54	57.50	50.75	46.75
60	58.75	52.00	47.50
70	62.75	56.00	50.75
80	68.00	61.50	55.50
84	69.50	62.75	56.75
90	73.50	66.75	61.50
94	74.75	68.00	62.75
100	88.00	80.00	74.75
105	94.75	86.75	80.00
110	105.50	97.50	90.75
115	118.75	108.00	101.50
120	140.00	126.75	120.00
125	153.50	140.25	133.50
130	167.00	153.75	147.00

An additional 10 per cent. will be charged for all glass more than 40 inches wide. All sizes over 52 inches in length, and not making more than 81 united inches, will be charged in the 84 united inches bracket. All glass 54 inches wide or wider, not making more than 116 united inches, will be charged in the 120 united inches bracket.

Metallic Paints.

Brown	℔ ton.	16.50@22.00
Red		14.00@18.00

Colors in Oil.

Black coach Japan	℔ lb.	.20 @30
in oil		.14 @18
drop		.14 @18
lampblack		.12 @14
Blue, Chinese		.36 @46
Prussian		.32 @36
ultramarine		.13 @16
Brown, sienna, burnt		.12 @15
raw		.12 @15
Umber, burnt		.11 @14
raw		.11 @14
Vandyke brown		.11 @14
Green, chrome		.12 @16
Paris		— @24
Red, Indian		.12 @14
Venetian		6 @ 8
Yellow, chrome		.16 @20
ocher, French		6 @ 8

Drugs.

Opium.

Opium, cs	4.00	@ 4.05
powdered	4.55	@ 4.60

Morphine.

Morphine, bulk	℔ oz.	2.40 @ 2.50
oz. vials		2.45 @ 2.50
⅛-oz. vials, 2½-oz. bxs		2.75 @ 2.85
⅛-oz. vials, 1-oz. bxs		2.80 @ 2.90

Codeine.

Codeine, pure, bulk	—	@ —
ozs	3.75	@ —
eighths	3.95	@ —

Sulphate, nitrate and muriate, 25c., and phosphate 50c. per oz. less than pure. 10 oz. lots (in one delivery), 15c. per oz. less than above.

Quinine.

Quinine, 100-oz. tins	19	@ —
50-oz. tins	19½	@ —
25-oz. tins	20	@ —
5-oz. tins	21	@ —
1-oz. tins	24	@ —
German outside	18½	@ —
Java	18	@ —
Amsterdam	18	@ —
Cinchonia, sulphate	5	@ —
Cinchonidia, sulphate	15	@ —

Miscellaneous.

Acetanilid, in bbls	℔ lb.	25 @ 26
Acetone		18½@ 19
Acid, benzoic, true	℔ oz.	10 @ 11
ex toluol	℔ lb.	30 @ 34
boracic, crystals, city		10 @ 11
powdered, city		10 @ 11
carbolic, drums		13½@ 15
bottles		20 @ 22
citric, domestic		52 @ 52½
phosphoric, S. G., 1,750		21 @ 25
S. G., 1,710		20 @ 24
pyrogallic, bulk		1.65 @ 1.70
salicylic		34 @ 36
Alcohol, U. S. P.	℔ gal.	2.46½@ 2.49
ref. Wood, 95 per cent		40 @ —
97 per cent		45 @ —
purified		80 @ —
denatured		36 @ 42
Aloin	℔ lb.	55 @ 60
Ambergris, black	℔ oz.	15.00 @20.00
gray		27.50 @35.00
Ammonia, carb., domestic	℔ lb.	7¾@ 8¼
foreign		8 @ 9½
Amyl acetate		1.50 @ 1.60
Antimony, needle		13½@ 15
Areca nuts		7 @ 7½
Balm of Gilead buds		32 @ 33
Barium, chlorate		16 @ 18
chloride		1.85 @ 2¼
nitrate		5½@ 6¼
Barbadoes tar, in bbls	℔ bbl.	30 @ 33
Bayberry wax		32 @ 35

Bay rum, bbls	1.85	@	2.25
Beeswax, white, pure	41½@		50½
yellow, crude	34	@	34½
yellow, refined	35	@	37
Bismuth, citrate	1.85	@	1.90
subcarbonate	1.75	@	1.80
subgallate	1.85	@	1.90
subnitrate	1.50	@	1.55
Blue pill	34	@	37
Borax crystals, in bbls	7½@		8½
powdered	7½@		8½
Bromide, ammonium	23	@	24
potassium	16	@	17
sodium	21	@	22
Bromine, bulk	—	@	50
Burgundy pitch	4	@	4½
Caffeine	2.65	@	2.75
Calomel, American	77	@	79
English	—	@	1.00
powdered	55	@	58
Cantharides, Chinese	60	@	65
powdered	75	@	80
Russian	85	@	90
powdered	1.00	@	1.05
Carnauba wax, Flor	51	@	52
No. 1	45	@	46
No. 2	42	@	43
No. 3	37	@	38½
North Country	38½@		39
Carbon bisulphide	5	@	7
Castile soap, white, pure	10	@	10¾
Marseilles	8	@	10
green, pure	8	@	10
ordinary	6	@	6½
mottled, pure	6½@		8
ordinary	5½@		6
Castor oil, city, bbls., No. 1	12	@	13
cases	12½@		13½
Ceresin, yellow	12	@	14
white	16	@	20
Chlorate hydrate, crusts	93	@	95
crystals	95	@	1.00
Chloroform	1.50	@	1.60
Civet	1.50	@	1.60
Cocaine, bulk	2.50	@	2.70
Cocoa butter, 12-lb. boxes	44½@		47
bulk	36	@	38
Codliver oil, Newf'land	27.00	@	28.00
Norwegian	27.00	@	29.00
Colocynth apples, Spanish	22	@	24
Trieste	28	@	30
Cologne spirit, 100 per cent			
proof gal.	1.31½@		1.32½
Corrosive sublimate	68	@	70
Coumarin, refined	3.00	@	3.50
Creosote, beechwood	73	@	75
Cuttlefish, Trieste	18½@		20
French	15½@		17
Jewelers'	40	@	70
Dragon's blood, mass	20	@	50
reeds	45	@	46
Epsom salts, dom	99	@	1.25
foreign	95	@	1.25
Ergot, Russian	26	@	28
Spanish	34	@	36
Ether, 1880	53	@	54
washed	57	@	58
1890	59	@	60
Eucalyptol	90	@	1.00
Formaldehyde	9	@	9½
Fusel oil, crude	1.20	@	1.25
refined	1.60	@	1.70
Gelatine, silver	23	@	26
gold	30	@	40
Japanese	38	@	42
Glucose, 42 deg	—	@	2.11
Glycerine, C. P., in bulk	13	@	13½
drums and bbls. added.			
C. P., cans	14	@	14½
dynamite	11½@		12
crude, soap lye	8	@	9
saponification	9½@		10
Grains of Paradise	11½@		12½
Grape sugar, 70 deg	2.11	@	—
Guarara	2.50	@	—
Haarlem oil	2.75	@	3.00
new style	4.50	@	—
Hops, New York, 1905	10	@	12
Pacific Coast, 1905	11	@	13
Hypophosphite, lime	60	@	64
potash	65	@	69
soda	65	@	69
Iceland moss	5	@	6
Insect powder	14	@	25
Iodine, resublimed	2.70	@	2.75
Iodoform	3.00	@	3.05
Irish moss, ordinary	6½@		8
bleached	9½@		10
Isinglass, Russian	3.40	@	3.50
American	80	@	—
Japanese	43	@	45
Japan wax	14½@		14½
Kola nuts	9	@	10
Licorice, mass, Greek	10	@	12
Spanish	14	@	20
stick, domestic	16½@		22½
foreign	25	@	28
Lithia, carb	1.05	@	1.10
Lupulin	20	@	21
Lycopedium	50	@	52
Manna, large flake	65	@	75
small flake	34	@	36
sorts	—	@	—
Menthol	2.45	@	2.50
Mercury bisulphate	50	@	53
Musk, pods, Cab	6.00	@	6.50
Tonquin	12.00	@	16.00
grain, Cab	—	@	14.00
Canton, extra	—	@	1.00
Canton, good	15	@	17
Tonquin	18.00	@	21.00
druggists'	14.00	@	14.50
Synthetic	5.00	@	10.00
Myrbane oil	7¼@		8½
Naphthaline balls	2¼@		2½
flakes	2½@		2½
Nitrate silver, crystals	40	@	43½
Nux vomica	2⅞@		3½
Petrolatum, bbls, amber	2¾@		—
pale, yellow	3½@		3¾
lily white	7½@		8
snow white	11	@	12
Phosphorus	45	@	1.00
Pilocarpine	5.50	@	—
Poppy heads	12	@	20
Precipitated chalk	4½@		5¼
Precipitate, red	87	@	89
white	92	@	94
Potash, permanganate	10¼@		11
cyanide, bulk	20	@	24
iodide, bulk	2.05	@	2.10
Quicksilver	53	@	54
Resorcin	1.15	@	1.20
Rochelle salt	20½@		21
Saccharine	1.50	@	1.75
Salicine, bulk	3.75	@	3.85
Salol, bulk	85	@	90
1-lb. bottles	1.05	@	1.10
½-lb. bottles	1.10	@	1.15
¼-lb. bottles	1.20	@	1.25
Santonine, crystals, bulk	10.55	@	10.80
powdered	10.75	@	11.00
Seidlitz, mixture	17	@	17½
Soda, benzoate	37	@	38
salicylate	34	@	36
Soluble cotton, 1st grade	—	@	1.00
2d and 3d grades	50	@	60
Spermaceti, block	29	@	30
cakes	30	@	31
St. John's bread	2½@		2½
Strontia, nitrate	7½@		8
Strychnine, crystals, bulk	95	@	1.05
Styrax	15	@	17
Sugar of milk, cob	—	@	20
powdered	14½@		15
Sulphur, roll	1.85	@	2.15
flour	2.00	@	2.40
flowers	2.20	@	2.60
Tamarinds	keg. 3.25	@	3.50
Thymol	lb. 1.80	@	1.90
Vanillin	oz. 25	@	30
Venice turpentine	lb. 10	@	17½
Zinc, chloride, gran	4⅞@		5
sulphate	2¼@		2½

Balsams.

Copaiba, South America	lb. 1.00	@	1.10
Para	1.50	@	1.65
solidifiable	—	@	60
Fir, Canada	gal. 3.00	@	3.25
Oregon	2.15	@	—
Peru	1.75	@	1.85
Tolu	23	@	24

Barks.

Angostura	lb. 28	@	32
Bayberry	5½@		6½
Black haw of root	14½@		16
of tree	—	@	7
Buckthorn	4½@		5
Cascara sagrada	8½@		10
Cascarilla, quills	14	@	15
ordinary	10	@	11
Canella, alba	11	@	12
Cinchona, red, quills	20	@	23
broken	15	@	20
yellow, quills	22	@	30
broken	18	@	20
Condurango	10	@	11
Coto	50	@	55
Cottonroot	7½@		8½
Cramp	6	@	7
Dogwood, Jamaica	6	@	7
Elm, select	18	@	22
Mersereon	8	@	10
Oak, red	2	@	4
white	3	@	—
Orange peel, bitter, Curacao, ¼s	2¾@		3½
sweet, Malaga, pieces	6	@	6½
quarters	9	@	9½
sweet, Trieste	5½@		7
Prickly ash, Southern	13	@	15
Western	13	@	14
Pomegranate, of fruit	7	@	9
of root	15	@	15½
Quetracho	8	@	10
Sassafras	12	@	15
Simaruba	15	@	18
Soap, whole	6½@		7½
cut	7	@	7½
Wahoo of root	50	@	55
of tree	12	@	13
White pine	4	@	5
White poplar	3½@		4
Wild cherry	6	@	9
Witch hazel	3½@		4

Beans.

Calabar	lb. 10	@	11
St. Ignatius	12	@	15
Tonka, Angostura	65	@	70
broken, costa	75	@	80
Para	22½@		25
Surinam	25	@	30
Vanilla, Mexican, whole	3.75	@	7.00
cuts	3.75	@	4.00
Bourbon	2.75	@	3.00
Tahita	1.00	@	1.50

Berries.

Cubeb, whole	lb. 12	@	14
powdered	15	@	18
Fish (cocculus indicus)	—	@	5
Juniper	4¼@		4½
Laurel	4½@		5
Prickly ash	15	@	16
Saw palmetto	15	@	20
Sloe	18	@	19

Essential Oils.

Almond, bitter	lb. 3.50	@	4.75
artificial	65	@	1.50
sweet, true	60	@	63
peach-kernel	30	@	33
Amber, crude	13	@	—
rectified	28	@	—
Anise	1.25	@	1.30
Bay	2.25	@	2.50
Bergamot	3.15	@	3.20
Birch tar, crude	12	@	15
extra	40	@	60
Cade	15	@	20
Cajeput	55	@	60
Camphor	20	@	25
Japanese, casee	25	@	27½
Caraway seed	1.00	@	1.25
Cassia, 75@80 per cent	1.47½@		1.50
Cedar, leaf	47½@		55
wood	25	@	27
Cinnamon, Ceylon, heavy	7.00	@	8.00
Citronella	44	@	47
Cloves, cans	1.12½@		1.15
bottles	1.15	@	1.17
Copaiba	1.25	@	1.60
Coriander	9.00	@	13.00
Croton	80	@	90
Cubeb	1.10	@	1.15
Erigeron	85	@	1.00
Eucalyptus, Australian	35	@	70
American	35	@	60
Fennel seed, sweet	60	@	1.25
bitter	45	@	1.00
Geranium rose, African	4.00	@	4.50
Turkish	1.75	@	2.00
French	6.00	@	7.50
Ginger	3.50	@	5.00
Gingergrass	1.10	@	1.35
Hemlock	85	@	90
Juniper berries	95	@	1.00
rectified	80	@	90
twice rectified	1.35	@	1.70
wood	17½@		20
Lavender, cultivated	3.00	@	3.25
flowers	2.50	@	3.00
spike	60	@	1.10
garden	52½@		70
Lemon	1.60	@	1.70
Lemongrass	1.50	@	1.60
Limes, expressed	1.50	@	1.65
distilled	65	@	75
Linaloe	2.50	@	3.00
Mace, distilled	80	@	85
expressed	75	@	80
Malefern	2.00	@	2.20
Mustard, natural	4.25	@	4.50
artificial	1.90	@	2.00
Neroli, petals	60.00	@	100.00
bigarade	50.00	@	90.00
Portugal	30.00	@	50.00
Nutmeg	80	@	90
Orange, bitter	2.15	@	2.30
sweet	2.25	@	2.30
Origanum	—	@	20
Patchouli	4.75	@	5.50
French	3.00	@	3.25
Pennyroyal	2.50	@	3.00
French	3.50	@	—
French peppermint, tins	2.25	@	2.60
Peppermint, tins	1.85	@	2.25
bottles	3.15	@	3.45
Petit grains, French	—	@	—
South American	4.50	@	5.00
Pimento	1.85	@	2.00
Rose	oz. 4.00	@	4.40
Rosemary flowers, French	lb. 62½@		80
Trieste	42½@		50
Sandalwood, East India	3.10	@	3.35
West India	1.50	@	2.00
Sassafras, natural	70	@	75
artificial	50	@	55
Safrol	50	@	55
Savine	75	@	1.25
Spearmint	2.75	@	3.50
Spruce	75	@	80
Tansy	3.75	@	4.00
Thyme, red, French	80	@	95
white, French	1.00	@	1.10
Wintergreen, nat'l (sweet birch)	2.00	@	2.27
synthetic	37	@	40
leaf	2.75	@	3.50
Wormseed, Baltimore	3.10	@	3.25
Wormwood, pure	3.00	@	3.25
Ylang ylang	40.00	@	70.00

Flowers.

Arnica	lb. 9½@		10
Calendula	35	@	38
Chamomile, Roman	30	@	35
German, true	15	@	26
Hungarian	8	@	11
Clover tops	15	@	16
Elder	23	@	25
Insect	15	@	40
Lavender, ordinary	12	@	13
select	20	@	30
hand picked	—	@	20
Mullein	90	@	1.00
Poppy, red	—	@	35
Rosemary	17	@	20
Saffron, American	40	@	50
Alicante	4.75	@	5.25
Valencia	8.00	@	8.50

Gums.

Aloes, Curacao, in boxes	lb. 7	@	8
in gourds	14	@	15
Barbadoes, true	35	@	45
Cape	8	@	8½
Socotrine	15	@	20
Asafoetida	18	@	20
Arabic, firsts	25	@	35
seconds	19	@	23
thirds	15	@	25
fourths	13	@	14
sorts	6¾@		12
Asafoetida	16	@	20
Benzoin, Siam	70	@	1.00
Sumatra	34	@	36
Camphor, American, ref'd, bbls	1.24	@	—
cases	1.25	@	—
Chicle	50	@	55
Euphorbium	13	@	15
Galbanum	40	@	45
Gamboge, pipe	82	@	85
Guaiac	15	@	22
Kino	26	@	30
Mastic	—	@	50
Myrrh, sorts	23	@	26
siftings	22	@	25
Olibanum, siftings	5½@		6
sorts	5½@		7
tears	10	@	12
Sandarac	14	@	17
Scammony, rosin	2.00	@	2.10
Aleppo	2.50	@	2.75
Virgin	3.50	@	6.00
Senegal, picked	11	@	20
sorts	7	@	8½
Spruce	1.10	@	—
Tragacanth, Aleppo, firsts	63	@	67
seconds	45	@	55
thirds	40	@	45
fourths	27	@	35
Turkey, firsts	70	@	80
seconds	45	@	55
thirds	35	@	40

Herbs and Leaves.

Aconite	lb. 9¾@		11
Althea	6	@	8
Bay	14	@	20
Buchu, short	26	@	27
long	25	@	27
Belladonna	10½@		11
Cannabis indica, tops	1.10	@	1.15
siftings	1.05	@	1.10
Coca, Huanoco	26	@	28
Truxillo	15	@	17
Coltsfoot	7	@	9
Conium	7	@	8
Damiana	9	@	9½
Deer tongue	8½@		10
Digitalis	7½@		8
Eucalyptus	3½@		4½
Grindelia robusta	7½@		8½
Henbane	8½@		9
Horehound	4½@		4⅝
Jaborandi	12	@	14
Laurel	3½@		4
Lobelia	10	@	11
Matico	20	@	25
Marjoram, German	22	@	25
French	8½@		9
Pennyroyal	—	@	6
Peppermint, American	10	@	12
German	25	@	30
Pichi	12	@	13
Pulsatilla	7½@		8
Prince's pine	12	@	15
Rose, red	60	@	65
Rosemary	3½@		4
Rue	12	@	13
Sage, Italian, picked	3¼@		5
Savory	4	@	5
Skull cap	35	@	45
Senna, Alex, whole leaf	20	@	22
half leaf	10	@	14
siftings	5½@		6
Tinevelly	6	@	10
Stramonium	8	@	9
Thyme	4	@	4½
Uva, ursi	5	@	6
Witch hazel	3½@		5
Wormwood, foreign	6½@		7
Yerba santa	7	@	8

Roots.

Aconite, German	lb. 11	@	12
Alkanet	7¼@		7½
Althea, whole	12	@	13
cut	14	@	18
Anglican, German	14	@	15
American	10	@	11
Arnica	9	@	18
Arrowroot, Bermuda	35	@	50
St. Vincent, bbls	7	@	7½
Belladonna, Atropa	15	@	20
Berberis, aquifolium	15	@	16
Bitter	35	@	40
Blood	9	@	10
Blueflag	19	@	20
Byronia	8	@	9
Burdock	10	@	11
Calamus, bleached	30	@	35
unbleached	6½@		7
Cobosh, black	4	@	5
blue	5½@		6
Colchicum	12	@	13
Colombo	4½@		8
Culvers	14	@	15
Dandelion, German	28	@	30
Doggrass	5	@	5¼
Galangal	4¾@		5
Gelsemium	8	@	9
Gentian	5½@		6
Ginseng, Southern	6.00	@	6.50
Northwestern	6.50	@	7.00
Eastern	7.00	@	7.50
Ginger, Jamaica, unbleached	14½@		17½
bleached	17	@	18
Golden seal	1.47	@	1.57
Hellebore, white	5	@	5½
black	4½@		5
powdered	6¾@		7
Hydrangea	7	@	8
Ipecac, Rio	1.75	@	1.80
Cartagena	1.65	@	1.70
Jalap	16½@		23
Kava kava	10	@	11
Lady slipper	35	@	38
Licorice, in bales	4	@	4½
selected, bundles	7	@	9
Lovage, American	65	@	75
German	8	@	12
Mandrake	5½@		6
Musk, Russian	14	@	15
Orris, Florentine, bold	9½@		10
small	5½@		6
Verona	6½@		7½
fingers	60	@	1.25
Pareira brava	9	@	10
Pellitory	12	@	13
Pink	65	@	75
Pleurisy	10	@	15
Poke	5¾@		6½
Rhatany	10	@	12
Rhubarb, Canton	37½@		40
Shensi	65	@	70
high dried	24	@	26
clippings	20	@	50
Sarsaparilla, Honduras	37	@	40
Mexican	8½@		9
Seneca, Western	50	@	55
Serpentaria	40	@	42
Skunk, cabbage	9	@	10
Snake, Canada	24	@	40
Squaw, vine	8	@	9
Stillingia	11	@	12
Stone	5	@	6
Squill	14	@	15
Unicorn, false	—	@	55
true	35	@	40
Valerian, German	12	@	15
Belgian	8	@	8¼
English	12	@	20
Wild yam	6	@	6½
Yellow dock	—	@	6
Zedoary	7	@	8

Seeds.

Anise, Italian, sifted	lb. 8½@		9
Spanish	7½@		8
German	6½@		7
star	28	@	31
Canary, Sicily	3	@	3½
Smyrna	3	@	3¾
South American, clean	2¾@		2½
Caraway, Dutch	7¼@		7½
Cardamoms, bleached	45	@	80
decorticated	55	@	60
Celery	4¾@		5
Colchicum	19	@	20
Conium	7	@	7¼
Coriander, natural	2¾@		4¼
bleached	3½@		4¼
Cummin, Malta	9	@	11
Fennel, German	8½@		9
Italian	4¾@		5½
Flax	bbl. 6.00	@	6.50
ground	lb. 3½@		3¾
Fenugreek	3¼@		3½
Hemp, Russian	2¾@		3
Larkspur	22	@	25
Lobelia	35	@	40
Millet, natural	1¾@		2
shelled	3¾@		4¼
Mustard, brown Barl	5¾@		6
California	6	@	6¼
German	5	@	5¾
Sicily	5½@		5¾
Trieste	8	@	8½
yellow, California	6¼@		6½
German	5	@	5¾
Poppy	7½@		8
Pumpkin	8	@	10
Quince	33	@	35
Rape, English	5¼@		5½
German	4½@		4¾
Sabadilla	9	@	10
Stavesacre	12	@	15
Stramonium	11	@	12
Strophantus, Kombe	70	@	75
Hispidus	45	@	50
Sunflower	3	@	4
Worm, Levant	17½@		18½
American	6	@	6½

Shellac.

D. C	63	@	64
Diamond I	60	@	61
V. S. O	60	@	61
Octagon B	56	@	57
Fine orange	52	@	57
A. C. garnet	46	@	47
Kala button	35	@	36
T. N	48	@	49
Button	40	@	50
Bleached, commercial	46	@	48
Bone dry	57	@	—

Spices.

Cassia, Batavia, No. 1	℔ lb.	20 @	21
Batavia, No. 2		14 @	15
China mats		7½@	7¾
cases		9¾@	10
broken		8½@	8¾
common		5¼@	5½
Saigon rolls		62 @	65
broken		38 @	42
buds		28 @	30
Chillies, Japan		15 @	16
Mombassa		7 @	7½
Zanzibar		7½@	8
Cinnamon, Ceylon, No. 1		21 @	22
No. 2		20½@	21
No. 3		19½@	20
No. 4		19 @	19½
Cloves, Amboyna		19 @	20
Zanzibar		18½@	19
Ginger, Cochin		8 @	9½
African, No. 1		7 @	7½
Japan		6 @	6½
Mace, Banda, No. 1		42 @	48
Penang No. 1		41 @	42
Penang, No. 2		28 @	39
Nutmegs, 105s to 110s		15 @	16
Pepper, Acheen		9½@	9¼
Lampong		9¼@	9⅞
Singapore		10 @	10½
white		13¾@	14
Tellicherry		— @	—
Pimento, No. 1		5¾@	6
grinding		5½@	5¾

Chemicals.

Heavy Chemicals.

Alkali, 48 per cent.	℔ 100 lbs.	90 @	95
ammonia, high test		82½@	87½
Bleach, over 35 per cent		1.25 @	1.35
Salt cake, glass makers'		65 @	67½
Soda, bicarb. English		3 @	—
American		1.30 @	1.70
Soda, caustic, domestic, f. o. b. works.			
60 per cent		1.85 @	1.90
70 per cent		1.75 @	1.85
74 per cent		1.75 @	1.85
78 per cent		1.75 @	1.85
foreign, 60 per cent		— @	—
70 per cent		— @	—
74 per cent		— @	—
76 per cent		1.90 @	1.95
powdered, granulated,			
60 per cent		2.40 @	2.60
70 per cent		2.75 @	3.00
Sal, American		70 @	80

Acids.

Acid, acetic	℔ 100 lbs.	2½@	2.35
oxalic		10 @	10½
sulphuric, 60 deg.	℔ 100 lbs.	1.00 @	1.50
66 deg.		1.00 @	1.75
bulk, 50 deg.		12.00 @	14.00
muriatic, 18 deg.		1.10 @	1.75
20 deg.		1.35 @	1.50
22 deg.		1.45 @	1.75
aqua fortis, 36 deg.	℔ lb.	3¾@	4½
38 deg.		4 @	4¾
40 deg.		4½@	4¾
42 deg.		4¾@	5
nitric, 36 deg.		4½@	4½
38 deg.		4¾@	4¾
40 deg.		4½@	5¼
42 deg.		4¾@	5¾
tartaric crystals		28¾@	29¼
powdered		29 @	29½

Miscellaneous Chemicals.

Acetate of lime, gray	℔ 100 lbs.	2.50 @	2.55
brown		1.60 @	1.65
Acetate of lead, brown sugar		7¾@	8
white sugar		9¾@	9¾
Alum, lump		1.75 @	1.80
ground		1.85 @	1.90
powdered		3.00 @	4.00
Aq. am'ia (in dms) 16 deg.	℔ lb.	3¾@	4
18 deg.		4 @	4¼
20 deg.		4½@	5¼
26 deg.		4¾@	5¾
Ammoniac, sal, gray		6 @	6¼
granulated		6 @	6¼
lump		9¼@	9½
Argols, powdered		4 @	4¼
red		2½@	3¾
Arsenic, white		7½@	8
red		7½@	7¾
Barium, chloride	℔ ton.	38.00 @	42.00
Brimstone, crude, foreign		— @	22.50
domestic		22.12½@	22.50
Cream tartar, crystals, p. c.	℔ lb.	23¼@	23¾
powdered, 99 per cent		23¾@	24
Chlorate of soda		8½@	9¾
Chloride of calcium	℔ ton.	14.50 @	19.50
Copperas	℔ lb.	55 @	65
Glauber's salt		45 @	50
Nitrate of lead		9¼	9½
Potash, chlorate, crystals		8¾@	9¼
powdered		9 @	9½
carb. calcined 90@95 p. c.		4 @	4½
calcined 96@98 per cent		4¾@	5½
hydrated 80@85 per cent		4¾@	5
caustic		5 @	6
Saltpeter, crude		4 @	4½
refined		4¾@	5¾
Sulphate, alumina		1½@	1¾
Tin, oxide		45 @	47
Vitriol, blue		7½@	7¾

Fertilizer Materials.

Ammoniates.

Ammonia, sulphate, foreign, spot	℔ 100 lbs.	3.07½@	3.10
futures		3.07½@	3.10
ammonia, sulphate domestic spot		3.07½@	3.10
futures		3.07½@	3.10
Fish scrap, dried, 10 p. c. ammonia and 14 p. c. bone phosphate, f. o. b. fish works	℔ unit	— @	—
wet, acidulated, 6 p. c. ammonia, 3 p. c. phosphoric acid, f. o. b. fish works		— @	—
Ground fish guano, imported, 10 and 11 p. c. ammonia and 15-17 p. c. bone phosphate, c. i. f. N. Y., Balto. or Phila		— @	—
Tankage, 11 p. c. and 15 p. c., f. o. b. Chicago		2.65 &	10
Tankage, 9 and 20 p. c., f. o. b. Chicago		2.55 &	10
Tankage, 6½ and 25 p. c., f. o. b. Chicago		20.00 @	—
Tankage, concentrated, f. o. b. Chcago		2.45 @	—
Garbage, tankage		10.00 @	11.00
Sheep manure, concentrated, f. o. b. Chicago	℔ ton.	7.25 @	—
Hoofmeal, f.o.b. Chicago	℔ unit.	2.55 @	—
Dried blood, 12-13 p. c. ammonia, f. o. b. New York		2.70 @	2.75
Dried blood, high grade, f. o. b. Chicago		2.65 @	2.70
Nitrate of soda, 95 p. c. spot,	℔ 100 lbs.	2.70 @	2.75
futures, 95 p. c		2.45 @	2.42½

Phosphates.

Acid phosphate	℔ unit.	60 @	67½
Bones, raw	℔ ton.	14.50 @	16.50
ground, steamed, 3 p. c. ammonia and 50 p.c. bone phosphate		19.00 @	19.50
unground, steamed		17.00 @	18.00
Phosphate rock, ground, f. o. b. Charleston, 2,000 lbs		6.75 @	7.00
So. Carolina phosphate rock, undried, per 2,400 lbs., f. o. b., Ashley River		5.75 @	6.00
So. Carolina phosphate rock, hot air dried, f. o. b. Ashley River		7.00 @	7.25
Florida land pebble phosphate rock, f. o. b. Port Tampa, Fla		5.75 @	6.00
Florida high grade phosphate hard rock, f. o. b. Florida or Georgia ports		10.25 @	10.50
Tennessee phosphate rock, f.o.b. Mt Pleasant, domestic, ℔ ton,			
78@80 p. c.		6.50 @	6.75
75 p. c. guaranteed		6.00 @	6.25
68@72 p. c.		4.00 @	4.25

Potashes.

Muriate potash, basis 80 p. c., spot	℔ 100 lbs.	1.95 @	1.98
Muriate potash, basis 80 p. c., future		1.90 @	1.93
Manure salt, 20 p. c., actual potash		14.75 @	15.40
double manure salt, 48 p. c.		1.16 @	1.19
Sulphate potash (basis 90 p. c.)		2.18 @	2.22½
Kainit, in bags, 2,240 lbs		9.50 @	—
Kainit, in bulk, do		8.50 @	—

Pyrites.

Spanish crude, unwashed fines, per unit averaging 48 to 52 p. c. of sulphur ex ship		10½@	11
Spanish smalls washed ore		8½@	9
Lump ore, washed, averaging 48 to 52 p. c. of sulphur		12 @	12½
Lump, non-arsenical high-grade ore		12½@	13
Lump, arsenical (not washed)		11½@	12
(In furnace size, 25c. per ton additional.)			
Domestic pyrites, fines, averaging 45 p. c. sulphur, f. o.b. shipping port		9 @	10½
Furnace size, averaging 45 p. c. sulphur f. o. b. shipping port, per unit		11 @	11½

Dyestuffs.

Acetate of soda	℔ lb.	4½@	6
Acid, gallic		53 @	55
picric, best crystals		22 @	28
tannic, commercial		34 @	38
crystals		58 @	65
Albumen, egg		60 @	75
blood		20 @	27
Alizarine, red		15½@	16½
Aniline oil		11½@	12
salt, crystals		9⅞@	10½
Annatto		32 @	35
fine		32 @	35
seed		8½@	11
Antimony salt, 75 per cent		28½@	30
65 per cent		24½@	27
47 per cent		19¼@	21
Bichloride of tin		12½@	16
Bichromate of potash, Amer		8½@	8½
Bichromate of soda		6¼@	6½
Bisulphite of soda		.80@	1⅝
Carmine of indigo		60 @	70
Cochineal, Teneriffe, silver		44 @	47
black		48½@	53
gray black		43 @	46
Cudbear, French		12 @	15
concentrated		23 @	28
English		9 @	12
Cutch, mat		4¾@	7
boxes		5 @	7
slabs		8 @	10
Dextrine, imported potato		5¾@	7
Domestic potato		5 @	6
corn		2.75 @	2.90
Divi-divi	℔ ton.	47.50 @	55.00
Flavine	℔ lb.	23 @	40
Fustic, stick	℔ ton.	17.00 @	20.00
young root		— @	45.00
Gambier		4¼@	4¾
cube No. 2		5¾@	b
cube No. 2		— @	—
Hypo. of soda, Am., bbls.	℔ cwt.	1.50 @	1.65
kgs.		1.55 @	1.65
German, cks.		1.85 @	2.00
kgs.		2.00 @	2¼
Indigo, Bengal, low grade	℔ lb.	55 @	65
medium		62½@	75
high grade		77½@	90
Kurpahs		50 @	60
Guatemala		35 @	70
Manila		45 @	50
Madras		45 @	50
J. (synthetic)		18 @	20
Indigotine		95 @	1.80
Logwood, stick	℔ ton.	18.00 @	22.00
roots		16.00 @	19.00
Madder, Dutch	℔ lb.	13½@	15
French		— @	—
Myrobolanes	℔ ton.	35.00 @	45.00
Muriate of tin, 36 deg		9 @	9¼
52 deg.		15 @	15¼
Nitrate of iron, commercial		1⅛@	1¼
true		4 @	4¼
Nutgalls, blue Aleppo		23 @	25
Chinese		16½@	17
Persian berries		— @	—
Phosphate of soda		1.90 @	2¼
Prussiate of potash, yellow		16¼@	16½
red		36 @	40
Prussiate of soda		10½@	11
Quercitron	℔ ton.	20.00 @	22.00
Sago flour		2¼@	2½
Salts of tartar		4¾@	7
Silicate soda, liquid		¾@	1⅛
crystals		2 @	2½
Soluble oil, 50 per cent		6 @	6¾
75@85 per cent		11 @	13
Starch, corn, pearl, in bbls		— @	2.35
in bags		2.20 @	2.40
potato		3½@	4
rice		6½@	7
wheat		4¾@	5¾
Stannate of soda		10 @	20
Sumac, Sicily No. 1 (30% tannic acid)		90.00 @	95.00
28 per cent. tannic acid		87.50 @	90.00
27 per cent. tannic acid		— @	—
Tapioca flour	℔ lb.	2½@	4
Tartar emetic		26 @	27½
Tin crystals		25 @	30
Turmeric, Madras		6½@	7
Aleppo		— @	—
Pubna		4¾@	5¼
China		4½@	5
Cochin, bulbs		2 @	3
Turkey red oil		5½@	15
Vanadiate ammonium	℔ oz.	60 @	75
Zinc dust	℔ lb.	6 @	6¼

Chipped Dyewood, Etc.

Barwood	℔ lb.	2 @	2½
Camwood		6 @	7
Fustic		1¼@	2
Hypernic		2¾@	3
Logwood		1 @	1½
Red sanders		3 @	3½

Extracts.

Archil, double	℔ lb.	6 @	10
concentrated		14 @	18
Barberry, French		22 @	28
Chestnut		3¾@	4
Oak		3 @	3½
Hemlock		3 @	3¼
Fustic, solid		8 @	11
liquid, 51 deg		6 @	8
Gall		12 @	18
Indigo		6 @	10
Logwood, solid		6 @	12
liquid, 51 deg		5 @	10
42 deg		4 @	6
crystals		10 @	15
Quebracho, solid		4½@	5
51 deg.		3½@	4
42 deg.		2⅞@	3
Quercitron		3¼@	4
Palmetto		2¼@	2½
Persian berry		— @	—
Sumac		4¼@	6

Comparative Prices.

On April 26, 1904, and corresponding dates in 1905 and 1906:—

Chemicals.	1906.	1905.	1904.
Bleaching powder	$1.25	$1.25	$1.25
Brimstone	22.12½	21.00	21.00
Caustic soda, 70 p. c.	1.75	1.75	1.75
Caustic soda, 60 p. c.	1.85	1.85	1.90
Sal soda, Am.	.60	.60	.60
Soda ash, 48 p. c. carb.	1.25	.90	..
Soda, alkali, 48 p. c.	.87½	.87½	.80
Soda, nitrate	2.30	2.77½	2.30
Cream tartar, crystals	.22½	.23½	.24½
Muriate of potash	1.95	1.95	1.88
Chlorate of potash	.08½	.08¼	.06¾
Kainit	8.50	9.50	9.05
Paints.			
White lead in oil	.07	.06¼	.06
Litharge, Am. pow'd	.06¾	.06	.05¾
Paris green	.21	.12	.11
Orange mineral	.08¼	.08	.08
Ven. red, English	1.15	1.15	1.25
Ven. red, American	.50	.50	.50
Barytes	17.50	17.50	17.50
Whiting, commercial	.43	.43	.45
Drugs.			
Opium	2.72½	2.90	2.72½
Morphine, domestic	2.10	2.10	2.10
Quinine	.18	.21	.27
Alcohol	2.45	2.38	2.47
Borax, city	.07½	.07¾	.07⅛
Beans, tonka (Ang.)	.65	.55	.60
Cubeb, whole	.10	.07½	.07⅛
Cuttlefish	.17	.14	.15
Glycerine, C. P., dms	.11¼	.12½	.14¼
Oil, castor, city	.11	.10¼	.09¾
Oil, cassia	.75	.70	.75
Oil, codliver, Nor	22.00	28.00	75.00
Oil, peppermint, tins	2.75	2.90	3.35
Oil, sassafras	.50	.57½	.55
Quicksilver	.65½	.62	.62
Asafoetida	.14	.15	.21
Gum arabic, sorts	.06	.06½	.06
Camphor, bbls	1.00	.71	.64
Shellac, D. C	—	.65	.95
Senna, Alex. Nat'l	.17	.17	.17
Senega root	.70	..	..
Ipecac	1.75	1.25	1.30
Jalap	.12	.08½	.08¾
Canary seed, Smyrna	.04	.05¼	.04½
Caraway seed, Dutch	.06	.05½	.05
Mustard seed, Cal., yel.	.04¼	.04¼	.03¾
Rapeseed, German	.02⅞	.02⅞	.02⅝
Oils.			
Cottonseed, prime, S. Y.	.37	.26½	.29½
Olive, Sicily	.57	.54	.50
Cocoanut, Ceylon	.06¾	.06¼	.05¾
Lard, prime, city	.70	.58	.58
Linseed, domestic	.42	.48	.42
Menhaden, prime, cde.	..	.18	.25
Sperm, bl'ched, winter	.66	.63	.65
Whale, bl'ched, winter	.40	.44	.48
Oil cake, Western	26.50	28.00	21.00
Spirits of turpentine	.67½	.60½	.58
Dyestuffs.			
Bichromate potash, Am.	.08¼	.08½	.08¼
Cochineal, Teneriffe, S.	.48	.48	.52
Cutch, bag	.04½	.04⅛	.04
Gambier	.04¼	.04¼	.04¾
Indigo, Bengal, h. gde.	.75	.75	.95
Prussiate potash, yel.	.14¾	.13½	.14⅛
Starch, corn	2.10	1.75	2.20
Sumac, Sicily, prime	49.50	42.00	46.00

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DRUG MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on pages 31, 32 and 33.

Saturday Noon, April 27, 1907.

ADVANCED.	DECLINED.
Mexican vanilla beans, 25c.	Codliver oil, $1.
Balsam tolu, 3c.	Rhubarb root, 2c.
Sweet orange oil, 5c.	Blue flag, 3c.
Prickly ash bark, 2c.	
Stramonium leaves, 1c.	
Dandelion root, 6c.	

Opium.

Advices from primary sources continue to manifest decided strength owing to the unfavorable crop prospects and values on spot show no abatement of firmness. The demand chiefly was for jobbing quantities at the prevailing range of $4.00@4.05 as to quantity. Powdered is moving out in seasonable proportions on the basis of $4.55@4.60.

Our correspondents cable as follows:—

Smyrna, April 26, 1907.

Sales have been made of 28 cases at 11s. 1d. Market is firm; arrivals to date are 3,217 cases.

Constantinople, April 27, 1907.

No sales. Market firm. Canary quieter, 11s.

We received the following mail advices:—

Smyrna, April 6, 1907.

The arrivals to date amount to 3,210 cases, against 1,482 at same period last year.

The sales this week on our market amount to 22 cases, as follows:—

For France, 4 cases carahissar, at 11s. 1d. f. o b.

For speculators, 18 cases carahissar, extra, at 11s. 5d., f. o. b.

Owing to the failure of the spring sowings our sellers advanced their figures, as will be noted above, fully 8 pence per lb. from last week's quotations.

Our market closes very firm, with an upward tendency prevailing.

Stocks are much reduced, for we cannot say we have much more than 1,000 cases, Constantinople 100 and Salonica next to nothing, and the probabilities are that we shall have a crop of only 3,000 cases.

We cabled last night as follows:—"Reporter advanced 8 pence, sales 22 speculation."

Constantinople, April 12, 1907.

The sales of the week in opium are 3 cases Gurun at 11s. 7d.; 3 cases Karahissar at 11s. 11d.; 3 cases Akchehia at 11s. 9d.

Quinine.

The market this week presents no new features, and the movement is dull and uninteresting. The next Amsterdam bark auction to be held on May 2 seems to be attracting little attention and present prospects are not indicative of any change in values. The offerings will consist of 9,190 packages. Makers' prices continue on the basis of 19@19½c. as to quantity. It is not possible that second hands will shade present quotations to attract buying interest. Java is available at 18c. The movement is of small proportions and round lots have been totally neglected. German remains unchanged, quiet but steady.

Mail correspondence follows:—

Cinchona Bark.

London, April 17, 1907.

At the auctions held yesterday (the fourth this year) the small supplies of 530 packages were brought forward, as against 350 packages catalogued on March 19. A moderate demand prevailed, and 200 packages found buyers at the average unit of 1½, there being no change. Ceylon, packages, 215 offered, 22 sold. Ledgeriana stem chips at 3d. per lb. East India, packages, 315 offered, 178 sold, according to analysis. Succirubra natural rich shavings at 5⅝d.@6d.; fair to good stem chips, at 2¼d.@3¼d.; branch, at 2¼d.@2¾d., and root at 2¼d.@4⅝d.; Hybrid stem chips, at 2½d; Officinalis branch, at 2¼d., and root at 3d.@3⅝d. Renewed stem chips and shavings, at 3½d. per lb. The next auctions in London will be held on May 14.

Miscellaneous.

ACETANILID. — Quiet conditions prevail, but the market presents a firm undertone, and makers continue to quote on the basis of 25@26c.

ACETONE.—While the raw material is in somewhat beter supply, the market is maintained on a relatively high level, and there is no abatement of the strength of this article at 18½@19c.

ACID CITRIC.—There is no material change or feature to note. While the demand is yet greater than is possible to meet, the market closed decidedly firm at 52@52½c.

ANTIMONY.—The market is slightly easier and supplies are now available at 13½c. The decline was occasioned by the lower market in China. The lower range has not stimulated trade to any extent, and the market presents a quiet appearance.

CANTHARIDES.—A firmer tone characterizes the market on close, and while no price changes were reported for the Russian, the inside quotation on Chinese whole was withdrawn, and it is not likely that any can be had below 65c. Russian whole continues at 85@90c; powdered at $1.00@1.05.

CARNAUBA WAX.—The market continues quiet but firm without new feature to report. A reason assigned for the dullness in nearly all quarters is that consumers have covered their requirements, at least for the next few weeks. Present quotations are 51@52c for Florida, 45@46c for No. 1; 42@43c. for No. 2, and 37@38½c. for No. 3. North country is without price change.

COCOA BUTTER.—No improvement is noted in the demand, which continues slow and hardly up to dealers expectations. Arrivals during the week were of seasonable proportions. Present quotations are 44½@47c. for 12-lb. boxes and 36@38c. for bulk.

CODLIVER OIL.—Further declines, both on spot and for shipment are to be noted. For spot oil $27 can now be done, while $19 f. o. b. has been the basis of some late sales, amounting to some 200 barrels, for shipment from Norway. Newfoundland oil is nominally steady at $27@28.

We received the following cables:—

The catch in Lofoten is 18,500,000 fish, equal to 34,200 bbls., whole country 30,080,000.

We received the following mail advices:—

Bergen, April 12, 1907.

The fishing in Lofoten is now about to close at most places. Owing to the much increased production of oil during the last two or three weeks the market price of oil has rapidly declined, so that finest Lofoten oil at present is worth about $20 per bbl. f. o. b. In the district of Finmarken fishing has begun with promising prospects for the coming season, cod being present in large quantities all along the coast. This has also influenced the price of oil. We believe that up to the present time the production of oil is equal to that of last year. It will depend on the result of the Finmarken fishery as regards future price of oil. It must be borne in mind that the Finmarken fishery is more treacherous than any of our cod fisheries, and as it is the last of the season it is the regulator of prices of all our fishing products.

FUSEL OIL.—A continued firm market is reported for both the crude and refined products. The offerings from primary sources continue small because of the scarcity and urgent needs for government consumption. Prices abroad are higher than on spot and tending upward. While $1.30 is quoted in one quarter for crude, $1.20 can still be done in a small way. Refined is offered at $1.60@1.70.

GLYCERINE.—There is nothing of particular interest to report this week. The movement is of ordinary proportions, with values decidedly firm at 13@13½c. for bulk and 14@14½c. for cans.

Concerning the situation abroad our Paris correspondent writes the following under date of April 12:—

The situation of our market for saponified glycerine has not changed since previous reports. There has been no more offering nor greater demand. On the other hand, lye glycerine continues in active demand at 87.50 francs, new barrels included, payment net 30 days, cost and freight, New York, but some sellers ask 89 francs.

MENTHOL.—The market presents an easier tone, and while $2.50 was realized during the week, a general market quotation of $2.45@2.50 rules for small quantities. Some inquiry for large sales was reported, but holders were firm at $2.50.

JAPAN WAX.—The market shows no abatment of the strength noted in our last issue and while 14c. can still be done for round lots, it is not likely that this price will hold, as the market presents a firmer undertone with small spot stocks.

TAMARINDS.—The spot situation is unchanged and values remain steady as listed. No reports were received concerning the new crop prospects. Present quotations are $3.25@3.50 by the keg.

Balsams.

Under influences of freer arrivals a slightly easier market is noted for Central American copaiba, but no price changes are given. Although for a certain quality 85c. was named, while up to $1.10 was paid for the prime goods. Late arrivals of para are reported to have commanded full prices from first hands. Canady fir is firmer; dealers decline to shade $3.25, and are

Schieffelin & Co.

New York,

Offer Special Inducements to buyers of the following:

Norwegian Cod Liver Oil
Gum Mastic
St. Vincent Arrow Root
Buckthorn Bark
Chiretta
Insect Powder
Coca Leaves, Huanuco
Laurel Leaves
Manna. Small Flake
Manna. Large Flake
Althea Root, Cut
Gentian Root
Ipecac Root, Carthagena
Saffron, American
Colchicum Seed
Parsley Seed
Worm Seed, Levant

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offering very sparingly. Oregon fir is firm but unchanged at $2.15. Peru is firmer at advance to $1.70@1.75. Tolu is offered at the recent advance to 23@24c., with dealers declining to shade inside figures.

Barks.

The upward course of the market for prickly ash has ben well sustained this week and prices are now established on the basis of 13@15c. There has been an improved inquiry for cottonroot, which shows some improvement both on spot and in primary sources. Stocks in the South are reported to be almost bare. While 7½@8½c. can still be done, only small quantities are offered. The market for soap bark continues to show a more active state, and a steady inquiry for both whole and crushed is reported on the basis of 6½@7c. for the former, and 7@7½c. for cut. There was some inquiry for cascara sagrada at the prevailing range of 9@11c., as to age and quantity.

Beans.

Trade in vanilla beans is of unusually good proportions, large quantities having changed hands during the past week. Nothing is now available below $3.75. Mexican cuts are held at advance to $3.75@4. Bourbon beans continue strong and upward and it is not likely that anything better than $2.75 can be done. St. Ignatius shows further improvement in price and are now quoted on the basis of 35@40c. Stocks are limited and closely concentrated.

Berries.

The market is wholly without new feature of interest to report. There continues to be a fairly good consuming demand for the different varieties under this heading, and prices without exception are unchanged. Whole cubebs are moving out freely on the basis of 12@13c. Juniper berries are without change, both on spot and abroad.

Essential Oils.

Of principal interest this week was the advance of 5 cents for a leading brand of sweet orange oil. Some business is reported in a large way, even at the revised range. An improved tone prevails for citronella oil, with the disposal of some comparatively cheap lots. Natural sassafras shows some improvement, although no price changes are reported. Stocks are exceedingly light, some small lots of the new crop received during the week were held at the old range of 70@75c. Natural wintergreen oil is in light supply, and the market presents a firmer undertone. Case peppermint was inquired for for export. The bulk oil remained dull and without feature. In the absence of important demand it is not unlikely that present figures can be shaded, and $1.85 would not be refused. Lemon oil continues in fair request at unchanged figures.

Concerning the situation abroad our Messina correspondent writes as follows under date of April 15:—

In spite of the fact that the market for oil lemon has not been as high this last week as it was a week ago, exporters continue to be cautious buyers. Makers, however, are still not anxious sellers, and they are strongly inclined to hold on to the supply on hand. This has the effect, indeed, to place several shippers in an embarrassed position, as they sold early at a comparatively low price and are now not able to fill their contracts, unless with a heavy loss. Summing up, the trade can be said to be a waiting one, with the feeling very firm, and that speculation is lifting prices above the legitimate values cannot be doubted.

There was some speculative buying last week at the equivalent of $1.55 per pound c. i. f., though the outside interests showed less activity.

Flowers.

American saffron flowers are without further decline this week. Only limited quantities are offered on the basis of 40c. For 50 lb. lots up to 50c. is asked. The other descriptions of saffron are steady as listed. Late in the week 22c. was named as an acceptable selling basis for elder flowers. However, for a desirable quality 25c. was realized. Clover tops continue in active request, at unchanged quotations. Roman chamomiles show no abatement of strength. Insect flowers continue in average consuming request at the prevailing range of 15@40c., as to grade and quantity.

Gums.

There is no abatement in the strength of the camphor situation, and no hopes are entertained for lower prices, owing to the difficulty in getting supplies of the crude materials. Makers' prices continue on the basis of $1.24@1.25. Arabic sorts are moving out freely on the basis of 6¾@12c. Stocks are light, and dealers are hopeful of better prices. The other items under this heading remain steady as listed.

Herbs and Leaves.

Of principle interest in this market was the fractional advance on uva ursi leaves, which are now held at 5@6c. For a prime quality 6¾c. was realized. Conditions, both on spot and abroad are considered favorable for further improvement. Stramonium leaves are higher, and prices have been advanced to 8@9c. Stocks on spot are in reduced supply, with practically all the cheaper varieties bought up. The market abroad is higher. Cannabis indica tops were inquired for in a large way, but local dealers were not in a position to offer. Present values are $1.10@1.15. Both long and short buchu leaves show improvement, and 25c. was said to have been paid for the long leaf. The season in Cape Town is over. Late arrivals have all been sold for local account.

Roots.

Probably the most interesting article in this department and the one

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which has attracted most attention has been danderlion root. During the week prices have fluctuated almost daily. On the opening 19c. was named, and later 15c. was openly quoted. The reduction stimulated the inquiry to such an extent that holders were loath to offer in anything like large lots, and practically withdraw from the market. Toward the close of the week 20c. was realized, and later 28c., which price represents the general market to-day. Several thousand pounds changed hands at the old range, and the firmer views of holders are now well sustained under diminishing stocks, with none available from abroad before the fall. Gentian root reflects decided firmness, but quotations are unchanged. Blue flag is in better supply and shows decline to 16 @18c. The other items under this heading remain steady as listed.

A correspondent writing us from Minneapolis on the senega situation says:—

"In regard to the senega situation in the Northwest and Canada, would say there is no interest shown, because the holders, on account of their limited stocks, have been indifferent about filling what orders they have received. In February wrote you advising there was scarcely any being held either by the dealers or collectors, where usually about 75,000 to 150,000 lbs. in the hands of all the holders would not be thought an unusual stock. Developments have borne out this information. There are only three lots known to be held, say, of a ton each, besides what little is being held by the dealers. Two of these lots cost, say, 55c. to 62c. when bought last year. The other lot the holder backed out of a sale at 63c. about three years ago. These lots of root are virtually out of the market, because all of them will not consider selling at the present market.

"Northern Minnesota, North Dakota and Canada have passed through one of the most severe and snowy winters they have ever experienced. Your readers have read accounts of interruptions in traffic on the railroads for long periods on account of the blockades. The spring is fully four weeks backward, and even now in many sections of Canada the snow has not melted, and the lakes are covered with several feet of ice. It is not much warmer in Northern Minnesota and North Dakota. These three sections cover all the Northwestern senega producing country. When the weather breaks up, if there are the usual spring rains, it will cause high water, and the farmers will not be able to get in their crops until the water subsides. The season being late there will be a rush to get in their crops. The demand for labor exceeds the supply for railroad building and many other lines. The outlook is not favorable for any accumulations of senega until after the wheat is harvested, and what will be dug will come onto a bear market. Are not bulls on the situation, but the consumers should keep enough stock on hand to fill their requirements to August 1st. Senega is not dear at about 50c. a pound for baled root, freight paid to New York, the way the market has been for this commodity for several years. New root shrinks in weight about 3 to 5 per cent. in carrying over. What few holders there are, with the limited quantity they have, could advance the price 10c. or 15c. a pound any time they desired, and the consumer would either have to pay it or go without it."

x

Seeds.

This market is devoid of interest and no price changes can be noted. Bleached cardamoms were inquired for at the prevailing range of 45@75c., Decorticated was offered earlier in the week at slightly reduced figures but the general market quotation is steady at 57½@60c. The mustard seeds dropped back into a rather uninteresting position. Still the market shows no abatement of the firmness previously reported. Poppy seed remains unchanged at 7½@8c. Levant wormseed is tending upward but values as yet are unchanged on the basis of 17½@18c.

Shellac.

The spot situation is without notable feature, and values continue firm as listed. A fair jobbing movement is noted. Arrivals during the week consisted of 3,400 packages, part lac refuse. The London market remains on a well sustained basis and without change. There was a slightly easier feeling in the market for T. N. forward shipment, but no price changes are given.

Spices.

The invoice business in this department has been of fairly good proportions, although brokers report a light demand generally. Stocks continue to move out, however, under a steady inquiry from country grinders, who are paying full prices. It is believed that while there is a temporary abatement of trade in some quarters goods might be had at a lower figure in quantities without exciting the market. The cassia's, particularly Batavia, show increased firmness and the latter is held at advance to 14@15c. Singapore pepper is slightly easier and is quoted at decline to 10@10½d. The market is reported bare of Tellicherry.

(Special to Oil, Paint and Drug Reporter.)

London Drug Market.

London, April 13, 1907.

A full resumption of business has taken place on the Mincing Lane markets this week, but so far everything has been rather slow and price alterations confined to last Thursday's drug auctions. Camphor is still easy for crude China, but firm for refined. Cassia oil is firm and dearer. Sulphate of quinine continues a dead letter. Shellac has resumed a firmer tone and is dearer, chiefly for futures. Vanilla beans have advanced at Wednesday's auctions and Japan wax is unaltered and quiet.

Shellac.—Available supplies of T. N. orange on spot are becoming smaller and smaller every day, and suitable qualities of fair have chiefly been sold for export to the United States, for which 215s. per cwt. has been paid. Common to ordinary kinds have changed hands at 208s. @212s. per cwt., and good to fine grades of orange, which are now more plentiful, are slow at 235s.@250s. per cwt., according to quality. Garnet A. C. is quoted at 200s., and C. A. L. in circles at 190s. per cwt., while buttons are unaltered. Futures of T. N. are firm and dearer, with a large business done, including April delivery, up to 217s.; May, up to 216s.; August, up to 216s., and October, up to 212s. per cwt

Camphor.—Further business has been done in crude China to arrive at 345s. per cwt. c. i. f. for April-May shipment, and reported since at 340s. c. i. f.; near at hand is offered at 355s. per cwt. c. i. f., with spot selling at 360s. per cwt. Refined Japan is in small supply, 4s. 11d. per lb. having been paid for 1-oz. tablets on spot and 4s. 7½d.@4s. 8d. per lb. for 2½-lb. slabs on spot, closing at the higher price. For arrival, 50 cases 1-oz. tablets have been done at 4s. 9d. per lb. c. i. f., and at which price some more business could probably be effected. Gum arabic is firm at the recent advance for Soudan sorts at 29s.@30s. per cwt. for fair half hard. Gum elaine is held for fine white at 75s. per cwt., but buyers are not easily forthcoming to pay such a high price. Menthol crystals are quoted at 8s. 3d. per lb. spot for Yazawa and sellers thereat, while 8s. 4½d.@8s. 6d. spot is asked, according to quantity, for Kobayashi spot, with 8s. 4½d. per lb. c. i. f. mentioned as likely procurable for March-May shipment. Star anis seed oil has been sold on spot at 5s. 3d.@5s. 4d. per lb., according to brand, and to arrive the price is lower at 4s. 11d. per lb., c. i. f. Cassia oil, of which the supplies are very small, is firm and dearer, and selling on spot up to 5s. 7d. per lb. for 70 to 75 per cent., up to 5s. 10d. for 75 to 80 per cent., and up to 6s. per lb. for 80 to 85 per cent. Offers to arrive are scarce and difficult to be obtained to be relied upon. Peppermint oil has been in good demand at 12s. 6d. down to 12s. per lb. for H. G. H. to date of drug auctions, but since then less business has been done. Wayne county remains at 9s. per lb. and Japan dementholized has been quietly moving on spot at 5s. 7½d. per lb. for Kobayashi and at 5s. 6d. for Suzeki, while near at hand lots have changed hands at 5s. 6d. per lb. c. i. f. Japan wax in good white squares is in slow demand on spot at 65s. per cwt., and for March-April shipment 60s. 6d. per cwt. has been paid.

Menthol Crystals.—There are now only a few cases of Kobayashi left on spot, which can be bought at 8s. 4½d. per lb., and for larger parcels 8s. 6d. per lb. is wanted.

Sulphate of Quinine.—The manufacturers have made no change and their price remains at 10d. per oz.

Vanilla Beans.

At the auctions held yesterday the very small supplies of 94 tins were brought forward as against 176 tins offered on March 6th. A very good demand prevailed and the whole found buyers as compared with 89 tins sold at the previous sales. Good to fine long beans fetched best sales' prices, but short black were 6d. per lb. dearer and fancy and split advanced 1s. to 1s. 3d. per lb. Bourbon tins, 4s. 4d., fair to good, 6½ to 7 inches at 9s. and 3½ to 7 inches at 9s. 3d. per lb. Mauritius tins, 4s. 4d., good 7 to 7½ inches at 11s., 4½ to 7 inches at 9s.@9s. 6d. and mouldy at 5d. per lb. Seychelles tins, at 86d.@86d., good to fine, 7 to 8½ inches at 13s.@14s., 7 to 8 inches at 11s. 6d.@12s. 6d. and 3 to 7 inches at 8s. 9d.@10s. 6d., fair 6 to 7½ inches at 9s. 6d.@11s., 4½ to 7 inches at 8s. 6d.@9s., 3 and 3½ to 5½ inches at 8s. 3d.@9s. 3d., cut ends at 8s.@8s. 3d., rather dry foxy at 8s. 9d., fair to good split at 8s. 4d.@9s. 3d., ordinary at 8s.@8s. 6d., dry mouldy at 3s. 6d.@4s., and low at 1s. 6d. per lb. The next auctions are fixed to be held on June 1st.

At the crude drug auctions held to-day after an interval of four weeks rather large accumulated supplies of most descriptions were brought forward. The demand was slow on the whole and only a very moderate quantity was disposed of. Cape aloes which have been scarce of late were well competed for and advanced on an average about 4s. per cwt. Curacao aloes on the other hand remained steady. Balsam tolu is decidedly firmer and Buchu leaves have been sold at steady rates for short round. Cardamoms, the offerings of which were heavier than for many months past, were of less interest than usual, owing to the anticipated decline not having been realized to its full extent. However the bold sizes were about 2d.@3d. per cwt. lower, the small and medium about 1d.@2d. and seeds scarcely maintained their previous values. Cinchona bark

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Jaborandi
Manna, all grades
Kola Nuts
Lavender Flowers
Licorice
Musk Root
Myrrh
Nux Vomica
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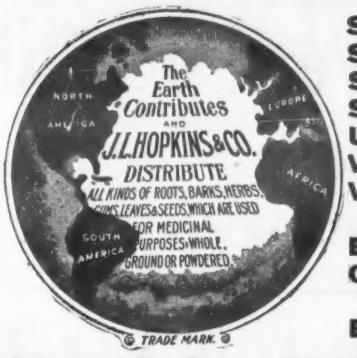

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Average Analysis:

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Organic matter - .1 per cent.

Absolutely free from Arsenic or Sodium

The Largest Sulphur Mine in the World

Calcasieu Parish, Louisiana

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sold at better prices for Huanocco and Lona. Colombo root was slow and lower, but dragon's blood, which had already advanced privately is about 15s. per cwt. dearer. Gamboge is firmer generally and for Australian gum arabic extreme prices were paid. Gum asafoetida sold well at previous rates and gum benzoin was unaltered steady for Sumatra, but dearer for Siam. Honey is in small supply of Jamaica and is selling at firm prices, but Honolulu of inferior quality was cheaper. Ipecac met a flat market and declined all round. Menthol crystals were sold cheaply without reserve for Yazawa. Nux Vomica was well competed for and fetched a higher price, whilst H. G. H. peppermint oil, which was offered and sold without reserve declined about 1s. 3d. per lb. Rhubarb is easier for rough round high dried, but higher and scarce for all other descriptions. Sarsaparilla in large supply met a fair demand, but suffered a very heavy decline, amongst which about 1s. 4d. per lb. for gray Jamaica. Seablac has advanced. Tinovelly senn realized full rates and wax, bees', fetched on the whole steady prices.

Aloes, Cape, cs, 31o, 30s.
good to fine hard bright,

	£ s. d.	£ s. d.
	cwt. 0 37 0	@0 38 0
hard fair	0 36 0	
hard drossy	0 34 0	@0 34 6
Aloes, Curacao, bxs, 50o, 27s.		
fair to good liver	cwt. 0 47 6	@0 57 6
black capey	0 40 0	
Ambergris, pkgs, 3o, 1s.		
common	oz. 0 23 0	
Areca nuts, bgs, 12o, 3s.		
brown split Ceylon	cwt. 0 15 0	
Balsam tolu, cs, 24o, 24s.		
good but slightly softish	lb. 0 1 0	
hard but slightly drossy	0 0 11½	
drossy	0 0 11	
Buchu leaves, bls, 22o, 18s.		
good but small short round,	lb. 0 0 9½	@0 0 10
fair but small short round	0 0 8	
Cardamoms, cs, 594o, 218s.		
Mysore extra bold fair to fine	lb. 0 1 11	@0 3 4
bold fair to good	0 1 8	@0 2 2
medium fair to good	0 1 6	@0 1 11
small fair to good	0 1 6	@0 1 8
splits fair to fine	0 1 6	@0 1 9
seeds fair to fine	0 1 10	@0 2 10
Calicut, according to quality and size of pods	0 1 8	@0 2 10
Cassia fistula, bgs, 2o, 2s.		
West Indian pods	cwt. 0 18 0	
Chiretta, bls, 43o, 15s.		
good	lb. 0 0 3½	
Cinchona bark, serons, 60o, 32s.		
Huanoco, according to quality	lb. 0 0 6¼	@0 0 7¼
Loxa	0 0 8	
Coca leaves, cs, 40o, 38s.		
brown brother, according to quality	lb. 0 0 3¾	@0 0 4¼
Colombo root, bgs, 211o, 72s.		
sorts according to quality,	cwt. 0 10 0	@0 11 0
Cuttlefish, pkgs, 126o, 60s, w. r.		
broken bones	lb. 0 0 1¾	@0 0 2
small pieces	0 0 0¾	
Dragon's blood, cs, 26o, 3s.		
fine bright seedy lump	cwt. 9 0 0	@9 17 6
Gallnuts, bgs, 29o, 10s before the auctions.		
slightly sea damaged blues,	cwt. 0 75 0	

(Continued on page 23.)

CASCARA SAGRADA

We are the largest and only exclusive dealers in CASCARA BARK in the West. Also Berberis Aquifolium.

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Vanilla Beans

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FLOUR SULPHUR (Sublimed)

250 and 175 Lb. Barrels

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Calc. Carb. Potash
Caustic Potash, GUARANTEED MINIMUM 90%
Sal Ammoniac, Electrical

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That the trade in the United States and Canada fully appreciate this fact is understood by the greatly increased shipments to North America during the past ten years. During 1906, Ceylon exported 685,256 pounds to various commercial centers. Large buyers would do well to deal direct with Ceylon rather than buy from second hands in London and Germany. For full particulars address

CARDAMOM CESS COMMITTEE, Kandy, Ceylon.

MARX & RAWOLLE
GLYCERINE
100 William St., New York

ACETONE
CARBOLIC ACID CRUDE
ALL STRENGTHS
NATIONAL ANILINE & CHEMICAL CO.

LANOLINE ("Liebreich") ADEPS LANAE (B. J. D.)
Anhydrous and Hydrous

IS MADE ONLY BY THE
VEREINIGTE CHEMISCHE WERKE AKTIENGESELLSCHAFT
vormals BENNO JAFFE & DARMSTAEDTER
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Insist upon receiving the original and reliable product. Look for the Trade-Mark and refuse all cheaper and impure substitutes.

TRADE MARK
"DARTRING"

VICTOR KOECHL & CO.
SOLE AGENTS NEW YORK

WILLIAM F. JOBBINS, Incorporated
Formerly JOBBINS & VAN RUYMBEKE
Refiners Chemically Pure **GLYCERINE**

and Glycerine for Nitro-Glycerine and other purposes. Glauber Salts for Dyes and other purposes.
Patentees of J. Van Ruymbeke's NEW PROCESS GLYCERINE DISTILLATION, and Recovery of GLYCERINE AND SALT from Waste Soap Lyes. Also Plants adapted for production and evaporation of Caustic Soda Lyes. Patented Filter Driers for Lime Mud.
Adopted by the Principal Soap and Candle Manufacturers of the United States, Europe, Canada, Mexico and Australia.

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San Francisco, 17th and Rhode Island Streets. NEW YORK, 81 Fulton Street.
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Quality Unexcelled.
H. J. BAKER & BRO., Camphor Refiners, 100 William St., New York

CHAS. PFIZER & CO., Manufacturing Chemists
NEW YORK

CREAM TARTAR, Crystals and Powdered, 99 1-2 — 100 per cent. TARTARIC ACID CITRIC ACID
BORAX, Crystals, Powdered and Granular BORIC ACID, (pure), Crystals, Powdered and Granular
ROCHELLE SALT SEIDLITZ MIXTURE REFINED CAMPHOR
BISMUTH SUBNITRATE, White and Bulky POTASSIUM IODIDE

ALSO A FULL LINE OF CHEMICALS FOR MEDICINAL AND TECHNICAL USES

PURE REFINED PARAFFINE FOR HOUSEHOLD USE.

Don't tie the top of your jelly and preserve jars in the old-fashioned way. Seal them by the new, quick, absolutely sure way—by a thin coating of Pure Refined Paraffine. Has no taste or odor. Preserves every glass of fruit.
Make your fruit jars absolutely air tight, by dipping the tops, after the cap has been screwed on, in a pan of melted Paraffine.
In the Laundry,—add a teaspoonful of melted Paraffine to the hot starch, which insures a smooth, glossy finish.
Put up in cakes averaging one pound each; full directions with each cake.

STANDARD OIL COMPANY.

WE CARRY THE LARGEST AND BEST ASSORTED STOCK OF
CRUDE BOTANICAL DRUGS
IN THE UNITED STATES
Buyers will find it to their interest to get our prices before placing orders elsewhere.
IMPORTING DEPARTMENT **PARKE, DAVIS & CO., New York**

INDUSTRIAL SECURITIES.

General business for the first quarter of the year has by no means reflected a prospective reaction. The representative industrial companies, with scarcely an exception, report a larger business in the first quarter of the year than in the corresponding period of last year. Reports from various trade centers are to the effect that the manufacturing industries are as active as ever, and if, here and there, some indications appear of a slight reaction in trade, they are not important enough to effect the general situation. Labor conditions continue satisfactory. The only important strike of the present time is that of the painters' organization against the employers, to enforce a wage scale, which the painters claim the employers agreed to pay and have now refused to do so. Some of the employers, when seen, were of the opinion that this strike would eventually be settled by the men coming back to work at the old rate of wages.

Conditions in the agricultural world are not all that could be desired, numerous reports of crop damage have resulted in considerably higher prices. However, it is rather early to draw conclusions as to agricultural results. May wheat has advanced. The range was from 86¼@90½c., closing Friday at 90½c. Corn has advanced. The range for the May option was 56@59½c., closing Friday at 59½c. Oats have ruled steady at 47@47½c., closing Friday at 47½c. Cotton has advanced. The range was from $9.73@9.93, closing Friday at $9.88 for the May option. Lard has been dull and higher, with a range from $8.55@8.70, closing Friday at $8.67 for the May option.

The market for time money has ruled easier during the week, particularly for over the year maturities. Rates at the close were 4½ per cent. for 90 days, 4¾@5 per cent. for four months and 5 per cent. for longer periods. Money on call at the Stock Exchange ranged from 1¾@2¾ per cent., with the bulk of the loans made at 2 per cent. The average rate was 2¼ per cent. The closing rate on Friday was 2 per cent. Mercantile paper has ruled quiet. Rates at the close were 5¾@6½ per cent. for 60 to 90 days' indorsements, 5¾@6½ per cent. for choice single names having four to six months to run, and 6¾ per cent. for other grades. The price of silver advanced during the week, closing Friday at 65¾c., showing a gain of ¼c. from the closing price of last week. Mexican dollars closed at 50¾c. bid and 52¾c. asked. The market for sterling exchange has ruled higher during the week and closed strong on Friday. Rates for actual business at the close were 4.8330@4.8335 for 60 days, 4.8615@4.8620 for cables. The supply of grain and cotton bills was scarce. Rates at the close were quoted at $4.82¾@4.83.

Transactions on the Stock Exchange have been comparatively light during the past week and the Industrial Securities have been more or less neglected. Fluctuations have been confined within a narrow range, but such as have taken place have been toward a higher level.

An official of the American Snuff Co. stated that the management has decided to erect a factory at Nashville, Tenn., for the manufacture of snuff cans in order to keep pace with the growth of the company's business. The capacity of the plant will be 18,000,000 cans a year, and five different sizes will be made. The output will supply the big snuff factories of the company in the State of Tennessee. The company at present has two plants for the manufacture of cans, one at Baltimore and another at Helmetta, N. J.

Directors of the National Glass Co. have declared the regular quarterly dividend of 1¾ per cent. on the preferred stock, payable April 29 to stockholders of record April 25.

An officer of the Corn Products Refining Co. states that the two opposition plants, the Eastern Glucose Co., at Roby, Ind., and the Clinton Sugar Refining Co. at Clinton, Ia., will not be in operation for several months.

Directors of the Casein Co. of America have declared the regular quarterly dividend of 2 per cent. on the preferred stock, payable May 10. Books close April 30 and reopen May 10.

The special meeting of the stockholders of the United States Leather Co. has been again adjourned, this time until May 7. No decision has yet been handed down by Vice-Chancellor Emery in the matter of the injunction to restrain the stockholders of the United States Leather Co. from voting to merge their company with the Central Leather Company.

The Allis-Chalmers Co. has closed a contract with the Asano Cement Co., Tokio, Japan, for their Moji plant, consisting of two 750 horsepower alternating current generators, including two cross-compound Corliss engines and the complete cement machinery and auxiliary appurtenances for the new plant.

At the offices of the Standard Oil Company, it was stated that since the first of the year, new business has eclipsed all previous records and earnings established a new high record.

In the following table are given the closing quotations Friday night.

Name.	Bid.	Asked.	Dividends payable.	Last dividend.	Stock outstanding.	Bonds outstanding.
Allis-Chalmers Co.	12⅛	12¼	.....	.....	16,150,000	.....
pref. 7%*	34	34¾	.....	.....	19,820,000	.....
American Agri. Chem. Co.	19	21	Q.—J.	.....	17,215,000	2,500,000
pref. 6%*	82	95	A.&O.	Apr.1,'07, 3%	18,153,000	.....
American Beet Sugar	16	17	.....	.....	15,000,000	2,700,000
pref. 6%	75	82	.....	Apr.1,'07, 1½%	4,000,000	.....
American Can Co.	6	6¼	.....	.....	41,233,300	.....
pref. 7%*	56	56¼	Q.—J.	Jan.2,'07, 1¾%	41,233,300	.....
American Chicle Co.	178	183	Monthly.	Apr.20,'07, 1%	6,000,000	.....
pref. 6%*	99	102	Q.—J.	Apr.20,'07, 1½%	3,000,000	.....
American Coal Products Co.	70	85	Q.—J.	Apr.1,'07, 1¾%	10,000,000	.....
American Cotton Oil Co.	30½	30½	D.	Dec.1,'06, 2%	20,227,100	.....
pref. 6%	82	92	J.&D.	Dec.1,'06, 3%	10,198,600	5,000,000
American Dyewood Co., com.	..	..	.....	.....	1,500,000	150,000
pref. 6%*	..	..	.....	.....	644,000	.....
American Glue Co.	66	58¼	M.&N.	Nov.7,'05, 2%	800,000	.....
pref. 8%*	116	118	F.&A.	Jan.21,'07, 4%	1,304,300	.....
American Linseed Co.	12½	14	.....	.....	16,750,000	315,000
pref. 7%	25¾	29	Q.—M.	Mar.15,'01, 1¾%	16,750,000	.....
American Smelters' Sec. Co., com.	..	..	.....	Sep.1,'06, 1¼%	30,000,000	.....
pref. A 6%*	..	..	.....	Mar.1,'07, 1½%	17,000,000	.....
pref. B 5%*	89	91	.....	Mar.1,'07, 1¼%	30,000,000	.....
American Smelting & Refining Co.	132½	132¾	.....	Apr.15,'07, 1¾%	50,000,000	.....
pref. 7%	108¼	108¾	Q.—J.	Apr.1,'07, 1¾%	50,000,000	973,000
American Snuff Co.	200	240	Q.—J.	Apr.1,'07, 2½%	11,001,700	.....
pref.	92½	100	Q.—J.	Apr.1,'07, 1½%	12,000,000	.....
American Soda Fountain Co.	1	2	.....	.....	1,250,000	.....
pref. 5%*	20	30	Q.—J.	.....	1,250,000	.....
2d pref. 8%*	2	5	.....	.....	1,250,000	.....
American Sugar Refining Co.	124	124¾	Q.—J.	Apr.2,'07, 1¾%	45,000,000	.....
pref. 7%*	122	126	Q.	Apr.2,'07, 1¾%	45,000,000	.....
American Tobacco, new pref.	91¼	92¾	Q.—J.	Apr.1,'07, 7½%	78,689,000	135,360,610
American Window Glass	25	..	.....	.....	13,000,000	.....
pref. 7%*	20	21	M.&S.	.....	4,000,000	.....
Casein Co. of America, 8%*	..	4	Q.—F.	.....	5,500,000	.....
pref. 8%*	70	80	Q.—F.	May10,'07, 2%	1,000,000	.....
Celluloid Co., 6%*	130	137	Q.—J.	Apr.1,'07, 1½%	5,925,000	.....
Chesebrough Mfg. Co.	400	440	Monthly.	.....	500,000	.....
Con. Stock and Pet. Ex. Mem.	..	800	.....	.....	.....	.....
Corn Products Refining Co.	19⅞	20	Q.—M.	.....	48,870,000	.....
pref. 7%*	77½	78	Q.—J.	Apr.10,'07, 1%	28,238,500	.....
Diamond Match Co.	124	125	Q.—F.	Mar.15,'07, 2½%	15,000,000	.....
Distillers' Securities Corp.	70½	70¾	Q.—J.	Apr 27,'07, 1½%	29,926,683	15,999,960
Dixon Crucible Co.	415	435	Q.—J.	July 1,'05, 3%	948,700	.....
Fisheries Co.	..	..	J.&J.	.....	1,999,500	500,000
pref. 7%	..	..	Annual.	Jan.10,'06, 7%	2,000,000	.....
General Chemical Co.	95	70	Q.—M.	Mar.4,'07, 2%	7,410,300	.....
pref. 6%	98	100	Q.—J.	Apr.1,'07, 1½%	11,000,000	.....
Harrison Bros. Co. (Inc.)	8	10	.....	.....	1,000,000	.....
pref.	98	101	Q.—F.	.....	1,500,000	1,300,000
H. W. Johns-Manville Co.	50	60	.....	.....	3,000,000	.....
pref.	..	110	.....	.....	.....	.....
Maritime Exchange Mem.	55	..	.....	.....	†($55)	.....
Nat. Glass Co.	..	..	.....	.....	1,650,000	.....
pref.	..	..	J.-A. J.-O.	Apr.20,'07, 1¾%	1,650,000	.....
National Lead Co.	62	62¼	.....	Jan 1,'07, 1%	14,905,400	.....
pref. 7%*	98½	99	Q.—M.	Mar.15,'07, 1¾%	17,904,000	.....
National Licorice Co.	..	..	Q.—J.	Dec.29,'06, 1¼%	1,000,000	.....
pref 6%*	..	..	Q.—J.	Mar.30,'07, 1½%	500,000	.....
National Sugar Refining Co.	.....	.....	.....	.....	10,000,000	.....
pref. 6%*	106	108	Q.—O.	Apr.2,'07, 1½%	10,000,000	.....
New Jersey Zinc Co.	380	420	.....	.....	10,000,000	10,000,000
Penn Salt Mfg. Co. (par $50)	102	104	A.&O.	Apr.15,'07, 6%	5,000,000	.....
Pittsburgh Plate Glass Co.	111	115	J.-A. J.-O.	Apr.1,'07, 1¾%	12,342,600	.....
pref.	..	..	.....	Apr.1,'07, 12%	150,000	.....
Planters Compress Co.	50c.	1	.....	.....	6,750,000	.....
pref.	..	..	.....	.....	3,250,000	.....
Platt Iron Works	..	..	.....	Nov.15,'06, 3%	800,000	400,000
Procter & Gamble Co.	380	385	Q.—F.	May 15,'07, 3%	9,000,000	.....
pref. 8%*	202	205	Q.—J.	Jan.15,'07, 2%	2,250,000	.....
Produce Exchange Membership	500	..	.....	.....	.....	.....
Pure Oil Co. (par $5)	5⅝	5¼	.....	Apr.'06, 2%	3,500,000	.....
pref. 6%* (par $100)	98	..	.....	.....	2,000,000	.....
Quicksilver Mining Co.	⅞	1⅜	.....	.....	5,700,000	.....
pref. 7%*	1½	4	.....	.....	300,000	.....
Royal Baking Powder Co.	155	165	.....	.....	10,000,000	.....
pref. 6%*	102	105	Q.—J.	Mar.30,'07, 1½%	10,000,000	.....
Standard Oil Co.	525	529	Q.—M.	Feb.15,'07, $15	97,500,000	.....
Standard Plate Glass Co.	..	..	F.—A.	Feb.'07, 3%	750,000	.....
Standard Table Oil Cloth	5	10	.....	.....	4,000,000	.....
pref. 7%*	54	60	.....	.....	4,000,000	.....
U. S. Glass	58	60	Q.—M.	Mar.15,'07, 1%	97,500,000	.....
U. S. Leather Co.	6	10	.....	.....	3,900,000	.....
pref. 8%*	101½	112	Q.—J.	Jan.2,'07, 1½%	62,282,300	5,280,000
U. S. Playing Card Co.	140	..	Q.—J	.....	3,000,000	.....
U. S. Reduction Refining Co.	18	20	Q.—J	.....	3,918,900	.....
pref. 8%*	53	55	Q.—J.	Apr.1,'07, 1½%	3,945,800	3,000,000
U. S. Rubber Co.	41⅜	42½	.....	.....	35,067,000	.....
pref. 8%	101½	103	Q.—J.	Apr.30,'07, 2%	28,000,000	.....
Virginia-Carolina Chemical Co.	28¼	29	.....	.....	27,984,400	.....
pref. 3%*	103	104	Q.—J.	Apr.15,'07, 2%	18,000,000	6,000,000

*Cumulative. †Price of last sale.

Petroleum Company Shares.

The following tabulated list of English, Scotch, Russian and Dutch petroleum companies, from Maclean & Henderson, Stirling, Scotland, gives the highest and lowest prices at which shares were sold on the London market during the week ended April 17, 1907:—

ENGLISH COMPANIES.

Name.	Capital stock.	High. £	s.	d.	Low. £	s.	d.
Assam Oil Co., com.	£310,000	0	11	3	..	..	..
Baku Russian Petroleum Co., com.	750,000	0	2	6	..	..	..
Baku Russian Petroleum Co., pref.	650,000	0	5	3	0	5	0
Bibi Eybat Co., com.	380,000	0	8	9	..	..	..
Bibi Eybat Co., bonds	125,000	86	10	0	..	..	..
British Californian Co., com.	100,000	..	..	..	..	..	..
British Californian Co., pref.	250,000	..	..	..	..	..	..
Californian Oilfields Co., com.	158,000	6	10	0	6	8	9
European Petroleum Co., pref.	556,000	0	2	6	..	..	..
European Petroleum Co., bonds.	325,000	84	0	0	..	..	..
J. C. & J. G. Fields Co., com.	80,000	1	15	0	1	14	6
Prices Candle Co., com.	60,000	34	0	0	33	17	6
Russian Petroleum & Liquid Fuel Co., com.	600,000	0	7	6	..	..	..
Russian Petroleum & Liquid Fuel Co., pref.	300,000	0	9	3	..	..	..
Schibaieff Petroleum Co., com.	575,000	0	6	3	..	..	..
Schibaieff Petroleum Co., pref.	575,000	0	2	5	..	..	..
Shell Transport & Trading Co., com.	2,000,000	..	..	..	..	..	..
Shell Transport & Trading Co., pref.	1,000,000	9	17	6	9	13	1¼
Spies Petroleum Co., com.	325,000	0	10	0	..	..	..

SCOTCH COMPANIES.

Name.	Capital stock.	High. £	s.	d.	Low. £	s.	d.
Broxburn Oil Co., com.	£235,000	2	3	7¼	2	3	3
Broxburn Oil Co., pref.	100,000	12	8	9	..	..	..
Burmah Oil Co., com.	1,000,000	3	7	6	3	5	0
Burmah Oil Co., pref.	250,000	1	4	0	1	3	9
Dalmeny Oil Co., com.	45,000	6	16	6	..	..	..
Dalmeny Oil Co., pref.	18,000	4	13	0	..	..	..
Oakbank Oil Co., com.	45,000	2	2	0	..	..	..
Oakbank Oil Co., new	135,000	2	0	9	..	..	..
Pumpherston Oil Co., com.	130,000	6	17	6	..	..	..
Pumpherston Oil Co., pref.	100,000	12	12	6	..	..	..
Parkfax Oil Co., com.	80,000	1	15	0	..	..	..
Young Paraffin Co., com.	452,000	3	19	0	3	18	6
Youngs Parffin Co., bonds.	150,000	..	..	..	..	..	..

DUTCH COMPANIES.

Name.	Capital stock. Florins.	High. Florins.	Low. Florins.
Arnhemsche Petroleum Co., com.	1,700 000	..	..
Dordtsche Petroleum Co., pref.	5,000,000	125	..
Dordtsche Petroleum Co., bonds, 4½ per cent.	1,000,000	102¼	..
Elzasser Petroleum Co., com.	2,000,000	..	..
Gaboes, com.	600,000	10	..
Holland Rumeensche Petroleum Co., com.	2,000,000	34	..
International Rumeensche Petroleum Co., com.	6,000,000	95½	..
Java Petroleum Co., com.	1,000,000	..	..
Koninklyke Nederl Petroleum Co., com.	1,000,000	845	..
Moeara Enim Petroleum Co., com.	9,000,000	145½	..
Moeara Enim Petroleum Co., obligations.	1,000,000	100	..
Moesi Elir Petroleum Co., com.	9,600,000	..	..
Nederl-Rumeensche Petroleum Co., com.	500,000	14¾	..
Nieuwe Nederl Petroleum Co., com.	342,000	..	..
Oliebronnen in Hanover, com.	1,400,000	125	..
Panolan Maatschappij, com.	.....	327	..
Perlak Petroleum Co., com.	.....	..	..
Perlak Petroleum Co., pref.	.....	132	..
Sumatra-Palembang Petroleum Co., com.	7,000,000	96½	..

RUSSIAN COMPANIES.

Name.	Capital stock. Roubles.	High. Roubles.	Low. Roubles.
Baku Naphtha Co., com.	2,300,000	554	551
Balakhany Naphtha Co., com.	2,450,000	....	....
Caspian Society, com.	2,500,000	4,400	4,325
Mirazoeff Bros., com.	3,200,000	....	....
Naphtha Co., "Kavkas," com.	4,000,000	....	....
Naph. Trad. Co. A. I. Mantacheff & Co., com.	.....	145	142
Naphtha Trading Co., Petroleum, com.	2,000,000	....	....
Nobel Brothers, com.	5,000,000	9,550	9,450
Nobel Brothers, pref.	10,000,000	....	....
V. Rops & Co., com.	1,250,000	....	....
Russian Naphtha Co., com.	3,408,000	....	....
Society Mazout, com.	6,000,000	....	....
Volga-Caspian Naphtha & Trading Co., com.	750,000	....	....

PETROLEUM MARKET.

(Continued from page 28.)

Decrease	1,784,272
From U. S., week ending April 26..	34,077,067
Total from U. S. since Jan. 1, '07..	361,024,684
Same period last year.	384,152,123
Decrease	23,127,439

TOTAL EXPORTS BY PORTS.

	1907.	1906.
New York	212,791,107	214,575,397
Philadelphia	121,309,125	151,788,850
Baltimore	.....	.....
Boston	.....	120,846
New Orleans	317,189	1,152,868
San Francisco	26,479,730	16,494,162
Grand totals	361,024,684	348,132,123

Foreign Quotations.

REFINED.

	Antwerp. Francs.	London. Pence.	L'pool. Pence
Monday	21¼@—	6¾@6¾	—@6¾
Tuesday	21¼@—	6¾@6¾	—@6¾
Wednesday	21¼@—	6¾@6¾	—@6¾
Thursday	21¼@—	6¾@6¾	—@6¾
Friday	21¼@—	6¾@6¾	—@6¾
Saturday	21¼@—	6¾@6¾	—@6¾

PETROLEUM CHARTERS.

Following is a list of vessels chartered and loading or to load petroleum at New York, Philadelphia, Baltimore and Boston. Quantities are refined in barrels, unless stated otherwise:—

New York.

Week ended June 22.

Br str J M Wood, Chemulpo, 21c.....cs.140,000

Week ended Dec. 15.

Br str Border Knight, Shanghai, 23c..cs.150,000

Week ended Dec. 22.

Nor bk Carnegie, Stockholm, 2s 10½d, bbls. 6,000

1907.

Week ended Feb. 22.

Nor bk Angerone, Baltic, p.t.....bbls. 7,000
Frch bk MacMahon, Sidney, 15c.....cs. 75,000

Week ended March 1.

Frch bk Admiral Coubert, Melbourne, 15c.....cs. 75,000

Week ended March 8.

Br str Ganges, Calcutta, 15c.....cs. 95,000

Week ended March 15.

Str (Spanish vessel), West India, 9s. 6d.....

Week ended March 22.

Str ——, Hong Kong, 20½c.....cs.165,000

Week ended March 29.

Br str River Forth, Shanghai, 22c..cs. 170,000
Br str Purley, River Plate, 30c....cs. 160,000

Week April 5.

Gr str Braunfels, Shanghai, 22½c.....cs200,000
Swed bk Diana, Townsville, 24c.....cs 25,000
Frch str Breiz Huel, Chefoo, 23c.....cs.160,000

Week ended April 12.

Br str Aboukir, Newchang, 25c.....cs. 140,000

Week ended April 19.

Br bk John S Bennett, Gold Coast, p t cs. ....
— str ——, Hong Kong, 20½c.....cs.180,000
Br str Anglo-Australian, Hong Kong, 20½c cs.140,000

Week ended April 26.

Br str Hydra, Shanghai, 23c.....cs.160,000

Philadelphia.

cs. 40,000

Week ended March 8.

Frch bk La Fontaine, Melbourne, 15c..cs. 75,000

Week ended March 15.

Br str Courtfield, Hiogo, 22½c.....cs. 170,000

Week ended March 22.

Ger str Scharzfels, Japan, 22½c.....cs. 200,000
Br str City of Carthage, Japan, 22½c.cs. 200,000

Week ended March 29.

Br str Warrior, Japan, 21@22c.....cs. 130,000
Br str Swanley, Japan, p. t.....cs.190,000

Week ended April 26.

Br str Auchenblae, Japan, 22½c.....cs.140,000
Br str City of Delhi, Japan.....cs.180,000
Gr str Trautenfels, Japan, 22½c.....cs.170,000

PETROLEUM CLEARANCES.

Following are the clearances of petroleum from the ports of New York, Philadelphia, Boston, New Orleans and San Francisco on the date named. Refined, unless otherwise specified:—

New York.

April 13.

Br str Atrato, Colon, 760 cs
Br str Horatio, Iquitos, 230 cs
Br str Horatio, Manoos, 4,040 cs ref, 25 cs naphtha
Br str Horatio, Para, 10,110 cs

April 15.

Br str Silvia, Halifax, 78 bbls
Br str Silvia, St Johns, 250 bbls, 25 cs
Br str Vaderland, Antwerp, 24 bbls

April 16.

Str Manoa, Barbadoes, 50 bbls, 250 cs ref, 50 dms, 35 cs naphtha
Str Manoa, Christiansted, 15 bbls, 300 cs
Str Manoa, Antigua, 4 bbls, 450 cs
Str Manoa, Demerara, 15 bbls, 525 cs
Str Manoa, Dominica, 331 cs
Str Manoa, St. Thomas, 35 cs
Str Manoa, Guadelope, 5 bbls, 550 cs
Str Manoa, Martinique, 440 cs
Str Manoa, St. Kitts, 100 cs
Str Brooklyn, Pto Rico, 30 bbls, 1,750 cs ref, 87 bbls, 50 cs naphtha
Br str Afghan Prince, Port Natal, 8,000 cs
Br str Afghan Prince, Madagascar, 7,000 cs
Br str Afghan Prince, Cape Town, 5,000 cs
Br str Afghan Prince, Delagoa Bay, 17,670 cs, 75 bbls
Br str Afghan Prince, Durban, 250 cs crude
Br str Afghan Prince, Beira, 2,100 cs

April 17.

Str Panama, Cristobal, 1,270 cs
Cub str Paloma, Cuba, 5 bbls

April 18.

Ger str Alleghany, Hayti, 1,100 cs
Br str Largo Law, Melbourne, 31,700 cs
Br str Largo Law, Sydney, 5,000 cs naphtha
Br str Largo Law, Auckland, 9 bbls
Br str Mercedes di Larrinaga, Montevideo, 19,000 cs ref, 100 dms naphtha
Br str Mercedes di Larrinaga, Buenos Aires, 400 cs
Br str Mercedes di Larrinaga, La Plata, 30,000 cs ref, 1,500 cs naphtha

Br str Shira, Talcahuano, 85,800 cs ref, 250 cs naphtha
Br str Shira, Valparaiso, 540 cs
Br str Shira, Callao, 4,000 cs
Br str Iquique, 10 cs naphtha
Br str Shira, Punta Arenas, 200 cs
Br str Shira, Pisco, 10 cs naphtha

April 19.

Sch Lavinia M Snow, Hayti, 3,140 cs
Ger str Siegmund, Rio Janiero, 3,000 cs
Gr str Siegmund, Santos, 8,000 cs
Str Manzanillo, Cuba, 1,200 cs
Str Seguranca, Cuba, 6 bbls, 282 cs
Str Seguranca, Nassau, 354 cs

April 20.

Br str Bloomfield, Avonmouth, 1,825,000 gals ref, 250,000 gals crude
Ger str Sibiria, Savanilla, 3,000 cs
Ger str Sibiria, Cartagena, 1,020 cs
Str Carolina, Pto Rico, 1,445 cs
Str Morro Castle, Havana, 1,000 cs
Br str Kasama, Fremantle, 52,800 cs ref, 1,000 cs naphtha
Str Cherokee, Turks Island, 5 bbls, 49 cs
Str Cherokee, Hayti, 1,930 cs
Str Maracaibo, Curacao, 740 cs
Str Maracaibo, Coro, 100 cs
Ger str Prinz Eitel Friedrich, Colon, 3,005 cs
Ger str Prinz Eitel Friedrich, Pt Limon, 200 cs
Ger str Prinz Eitel Friedrich, Jamaica, 1,135 cs
Ger str Flandria, Jamaica, 10 cs naphtha
Ger str Flandria, Savanilla, 100 cs naphtha
Ger str Flandria, Hayti, 25 cs naphtha

April 22.

Brig Alacea, Pto Rico, 3,977 cs
Br bark Eclipse, Whampoa, 127,040 cs
Ger str Deutschland, Rotterdam, 1,680,000 gals bulk
Br str Caucasian, Belfast, 2,100,000 gals bulk

April 24.

Br str Kura, Hull, 950,000 gals ref, 150,000 gals resid
Ger str Phoebus, Flushing, 2,800,000 gals

Philadelphia

April 9.

Ger str B Petersen, Stockholm, 1,333,090 gals bulk
Dtch str Chester, Antwerp, 1,172,320 gals bulk

April 10.

Ital bark Affezione, Las Palmas, 412,000 gals
Dtch str Charlois, Rotterdam, 1,206,300 gals bulk

April 11.

Fr bark Quevilly, Rouen, 1,349,317 gals crude

April 13.

Br str Lux, Cette, 961,688 gals bulk

April 16.

Ger str Pennoil, Dover, 2,079,230 gals bulk
Sch Edith H Symington, Havana, 330,250 gals crude

April 17.

Str City of Everett, Havana, 602,020 gals crude

April 18.

Br str Aral, Dover, 1,322,890 gals ref

April 19.

Ger str Willkommen, Flushing, 1,387,805 gals ref
Fr bark France Marie, Marseilles, 800,000 gals crude

New Orleans.

April 12.

Str Karen, Colon, 350 bbls

April 18.

Nor str Harry T Inge, Porto Cortez, 6 bbls, 700 cs

April 19.

Br str Appomattox, Panama, 800 cs

San Francisco.

April 15.

Str Mariposa, Tahiti, 30 cs

April 17.

Str Seminole, Hankow, 2,280,000 gals bulk

April 18.

Str Amy Turner, Honolulu, 10 bbls, 30 dms, 10,000 cs

April 19.

Str City of Para, Central America, 18 bbls, 4 dms, 526 cs

EXPORTS OF PETROLEUM.

Following are the exports of petroleum products from the port of New York (in gallons) during the past week, and since January 1, as also exports during the corresponding period last year:—

Refined.

	For week.	Since Jan. 1.	Same time last year.
Adelaide		564,800	1,436,930
Aden		500.000	51,000
Alexandretta			636,170
Algiers		700,000	15,000
Algoa Bay		395,970	1,124,830
Amsterdam		3,000,000	3,550,000
Angiers			1,500,000
Antigua	4,700	21,600	12,500
Antofagasta			427,250
Antwerp	1,200	7,866,200	9,320,000
Auckland	450	450	1,360,820
Avonmouth	1,825,000	3,575,000	2,750,000
Axim		224,900	228,240
Azores			300
Bahia		854,000	871,700
Barbadoes	5,000	106,300	85,700
Barranquilla		15,500	5,500
Beira	21,000	146,000	33,000
Belfast	2,100,000	3,975,000	1,000,000
Bermuda		88,210	115,070
Bilboa		20,000	
Bluefields			44,250
Bombay		2,433,500	3,461,640
Bordeaux			18,250
Bremen			8,000
Brisbane		564,800	
British Guiana		2,750	
Buena Ventura		100	200
Buenos Aires	4,000	71,000	1,777,000
Cabadello		290,000	100,000
Caldera			82,750
Calcutta		4,850,180	2,912,600
Caleta Calosa		20,000	
Callao	40,000	50,000	83,500
Campeche			8,000
Canary Islands		304,800	
Cape Town	50,000	88,500	964,190
Cartagena	10,200	99,900	87,120
Carupano		19,750	9,800
Casa Blanca			62,030
Cavite			6,940
Cayenne		16,800	22,150
Cebu		10,000	
Ceara		168,600	102,800
Celba		2,100	4,600
Chefoo			1,461,220
Christiansted	3,750	3,750	1,000
Ciudad Bolivar		20,540	34,010
Coconada		280,000	
Colombo		260,000	500,000
Colon	37,650	434,700	328,320
Conarky		60,000	2,000
Copenhagen		1,525,000	
Coquimbo			86,000
Corinto		11,050	2,500
Coronada			250,000
Coro	1,000	4,000	2,000
Cristobal		25,100	
Cuba	10,000	531,780	184,100
Curacao	7,400	65,300	52,922
Delagoa Bay		1,498,800	332,000
Demerara	5,975	187,325	160,300
Desterro		100,000	150,000
Dominica	3,310	11,380	11,210
Dover			2,150,000
Dublin		875,000	3,350,000
Dunedin		1,000	107,500
Durban		87,500	1,033,300
Dutch Guiana			89,050
East London		91,800	675,400
Eten		6,000	9,000
Fayal		4,800	
Fiume			15,500
Fiusning, f. o. b.	2,800,000	30,615,000	41,960,000
Foochow			500,000
Forcados		146,000	2,625,650
Fremantle	528,000	1,314,900	1,191,450
French Guiana			54,120
Ghent		900,000	
Grenada		34,600	39,000
Grand Cayman		5,000	
Guadeloupe	5,750	35,850	40,370
Guanca			300
Guanta		7,000	6,000
Guayaquil		122,050	99,600
Haiphong		1,591,680	452,870
Hakodate			1,419,880
Halifax	3,900	12,500	12,500
Hamburg		1,275,000	1,675,000
Havre			800
Hayti & S. Dom.	61,700	508,700	618,560
Hiogo		293,000	
Hodeida		100,000	3,000
Hong Kong		2,631,000	
Hull	950,000	3,776,000	3,450
Ilcilo		100,000	
Iquique			482,750
Iquitos	2,300	17,350	56,410
Jamaica	11,350	324,220	382,860
Java		3,358,950	4,830,920
Jedad		200,000	
Karikar			150,000
Kurachee		250,000	3,823,800
La Guayra		195,500	152,300
La Plata	200,000	2,505,000	42,500
La Union		1,200	
Las Palmas		110,000	474,000
Lisbon		2,200,125	1,217,000
Liverpool		1,990,000	5,700
Livingston			15,850
Lyttleton			72,500
London		6,557,000	11,859,500
Macelo		221,500	115,000
Malta			20,000
Madagascar	70,000	70,000	
Madras		276,000	450,000
Manaos	40,400	389,670	360,470
Manchester			21,250
Manila		2,145,200	
Maracaibo		63,950	68,500
Maranham		111,420	67,100
Maranhao		62,900	
Martinique	4,400	66,650	70,960
Massawa		100,000	
Mauritius		350,000	
Melbourne	317,000	1,682,400	1,741,930
Mollendo		75,150	131,500
Mombassa		100,000	
Montevideo	190,000	1,311,800	878,000
Mossel Bay		64,700	14,500
Nassau	3,540	41,770	18,040
Newcastle			2,500
Newchang		429,819	
Oporto		1,066,125	
Pascamayo		6,000	56,200
Padang		861,720	
Pampatar		5,000	5,950
Para	101,100	654,000	366,950
Parahyba		42,500	119,000
Paramaribo		29,900	
Payta		32,000	9,500
Pernambuco		908,000	802,000
Pisco			250
Plymouth		600,000	
Pondicherry		150,000	
Porto Barrios			13,650
Porto Cabello		107,600	125,305
Port Elizabeth		1,000	
Port Limon	2,000	20,050	29,000
Port Natal	80,000	90,000	
Progreso		25,650	13,250
Punta Arenas	2,000	630,400	400,400
Rangoon		517,020	
Rio Gr. do Sul		630,140	633,260
Rio Janeiro	30,000	2,070,000	1,925,000
Rosario		639,250	328,080
Rotterdam	1,680,000	12,047,500	11,045,000
Rouen			1,700,000
Saigon		1,426,190	
Salaverry		15,000	15,000
San Fernando			1,000
San Miguel		4,000	
Santos	80,000	2,634,000	1,454,000
Sao Francisco, Brazil			6,000
Savanilla	30,000	75,570	92,850
Savona		2,350,000	
Shanghai		14,263,030	
Sierra Leone			40,000
Singapore		961,780	100,000
South Shields		887,500	1,690,000
Stockholm			34,200
Sunderland		887,500	
Surinam		77,000	
Sydney		160,000	400,000
St. Croix		17,400	13,900
St. Johns, N. F.	12,750	182,300	166,650
St. Kitts	1,000	23,900	44,530
St. Lucia		17,250	11,200
St. Martins			500
St. Thomas	350	34,080	10,060
St. Vincent		4,750	
Taku Bay		1,579,160	1,500,000
Talcahuano	358,000	1,313,000	19,840
Tampico		1,480	19,840
Teneriffe		80,000	
Tocopilla			2,000
Townsville			514,770
Trieste		500	7,400
Trinidad		237,700	266,050
Truxillo		2,100	1,240
Tsingtau		55,000	
Turks Island	7,400	10,200	3,000
Tuticorin		285,000	
Valparaiso	5,400	922,000	532,250
Venice			1,400,000
Vera Cruz		20,066	3,250
Victoria		80,000	60,000
Wellington		25,000	
Whampoa	1,270,400	3,780,650	
Yokkachi			2,659,590
Yokohama		7,000	6,001,030
Zanzibar		220,000	
Totals	13,174,860	159,801,930	160,749,210

Crude.

Avonmouth	250,000	250,000	
Cuba		869,430	207,100
Durban	2,500	2,500	
Manila			5,050
Montevideo			500
Tampico		100,000	23,800
Totals	252,500	1,216,930	236,450

Naphtha.

Algiers		27,500	
Adelaide		21,000	74,000
Algoa Bay		158,000	35,000
Antofagasta			700
Antwerp		195,000	
Auckland			280,000
Bahia		20,000	
Barbadoes	5,350	5,350	
Bilboa		150,000	7,550
Bombay		35,040	
Brisbane		17,500	
Buenos Aires	15,000	105,450	762,200
Callao			400
Cape Town		10,000	23,100
Ceara		400	
Cebu		40,000	
Colon			1,000
Coquimbo		2,000	1,000
Corral		1,000	1,500
Cuba		39,320	11,600
Curacao		105,270	5,650
Delagoa Bay		235,300	15,640
Dunedin			1,000
Durban			37,720
East London			6,250
Fremantle	10,000	30,000	100,250
Guadeloupe			2,100
Guayaquil		3,500	
Haiphong		10,000	
Hayti & S. Dom.	250	1,750	2,050
Iquique	100	300	500
Jamaica	100	5,650	5,550
Java			15,000
La Plata		331,940	11,500
Kurachee			38,400
Lisbon		750	32,500
London			4,361,000
Lyttleton			10,000
Madras		50,000	1,200
Manaos		800	
Maranham		200	
Maranhao		400	
Mauritius		50,000	
Melbourne		125,000	
Mollendo			500
Montevideo	10,000	69,750	28,550
Mossel Bay		17,000	
Oporto		2,750	
Padang		10,000	
Para		3,350	
Parahyba		150	
Paramaribo		500	
Pernambuco		800	
Pisco	100	100	
Port Cortez		300	
Progreso		1,000	
Punta Arenas			500
Rio Gr. do Sul		10,200	
Rio Janeiro		30,500	8,000
Rosario		2,500	1,000
Rouen			955,417
Saigon		10,700	
Salaverry		12,500	
Santos		147,350	1,500
Savanilla	1,000	1,000	
Savona		52,500	
Shanghai			200,000
Singapore		10,000	
Stockholm		224,350	150,000
Sydney	50,000	80,000	
Surinam		200	
Taku Bay		5,000	40,000
Talcahuano	2,500	3,500	750
Tampico		5,450	1,000
Townsville			6,500
Valparaiso		3,000	9,000
Venice			30,000
Wellington			40,000
Totals	94,650	2,482,820	7,347,717

Soap Trees.

PRODUCT VALUABLE FOR FABRIC CLEANING.

Consul-General Richard Guenther makes the following report from Frankfort, Germany:—

"Mr. R. Lang, of this city, councilor of commerce and delegate to the government of Algiers, states that he has just returned from a commercial tour of study in Algiers, where he was called by that government. During his trips he met one of the largest landed proprietors, Mr. S. Bertrand, chairman of the Algerian Agricultural Society at L'Arba, near Algiers, whose domain comprises many thousand hectares (hectare, 2,471 acres), which are planted with vines, oranges, olive and soap trees. He has succeeded, after numerous experiments, in cultivating a large plantation of soap trees, from which he gathers several thousand tons of berries annually. The soap tree resembles an apple tree of medium growth. The fresh fruit is green, the interior of which, besides the kernel, contains a yellowish, gelatinous, sticky substance. The fruit used for making soap contains three times as much soap as the 'panama' wood. It seems to be destined to be of great service to the cloth and linen manufacturers, and, above all, for domestic purposes, as it can be used to clean linen and silken fabrics and colored embroideries. The colors are in this way renovated, while the use of soap makes them run together."

(Special to Oil, Paint and Drug Reporter.)

Imports of Petroleum into United Kingdom.

The following is a return of the registered quantity of petroleum imported into the United Kingdom for the week ended April 15, 1907:—

LONDON.

Importer.	Ship.	No. of Barrels.	Description.	Quantity. Gallons.	Port whence.
Schlemann's Oil Co.	Irkutsch	133	Lub.	6,500	Reval.
B. Jacob & Son.	Minnesota	60	Lub.	2,370	Philadelphia.
Union Lighterage Co.	Minnesota	105 pkgs.	Lub.	1,070	Philadelphia.
Fielder, Hickman & Co.	Mesaba	59	Lub.	2,360	New York.
R. Park & Co.	Dordogne	6	Lub.	240	Marseilles.
R. Park & Co.	Dordogne	6	Lub.	240	Marseilles.
Anglo-American Oil Co.	Minnesota	470	Lub.	18,800	Philadelphia.
Argo S. S. Co.	Schwabbe	10	Lub.	250	Bremen.
Jas. Owen.	Export	54 cks.	Tar Oil.	2,250	Rotterdam.
Consolidated Petroleum Co.	Terek	Bulk.	Lamp.	1,420,900	Batoum.
A. Brown & Co.	East Point	100	Lamp.	4,000	Philadelphia.
Lubricating & Fuel Oils	East Point	390	Lub.	15,990	Philadelphia.
Anglo-American Oil Co.	Mesaba	500	Lub.	20,000	New York.
G. W. Sheldon & Co.	Mesaba	248 pks.	Lub. Gr.	1,140	New York.
London & India Dock Co.	Mesaba	57	Lub.	2,280	New York.
Schlemann's Oil Co.	East Point	60	Lub.	3,130	Philadelphia.
British Petroleum Co.	Aras	Bulk.	Lamp.	838,080	Lustendje.
T. H. Lee.	Granton	6 cks.	Lub. Gr.	370	Hamburg.
Lubricating & Fuel Oils	Nerissa	390	Lub.	15,990	Hamburg.
Produce Brokers.	Clapton	90	Lub.	3,600	Antwerp.
Page, Son & East.	Gannet	68	Lub.	2,720	Antwerp.
Mordaunt Bros.	Minnetonka	387	Lub.	15,800	New York.

LIVERPOOL.

Liverpool Storage Co.	Bovic	134	Lub.	5,360	New York.
Geo. B. Taylor.	Vlug	50	Lub.	2,000	Reval.
C. C. Wakefield & Co.	Rissa	37	Lub.	1,480	Antwerp.
Stockdale & Co.	Cymric	120	Lub.	4,800	Boston.
Vacuum Oil Co.	Georgic	659	Lub.	26,360	New York.
Pickford's	Georgic	6	Lub. Paste.	240	New York.
Geo. B. Taylor.	Georgic	2,375	Lub.	95,000	New York.
Anglo-American Oil Co.	Lucigen	Bulk.	Lamp.	1,664,570	Philadelphia.
Meade, King, Robinson & Co.	Abington	1,157 steel.	Spirit.	57,570	Rotterdam.

BRISTOL.

H. R. James & Sons.	Kansas City	15	Min. Colza.	600	New York.
H. R. James & Sons.	Kansas City	35	Lub.	1,400	New York.
W. Smith & Co.	Brooklyn City	560	Lub.	22,400	New York.
Anglo-American Oil Co.	Housatonic	Bulk.	Lamp.	1,120,990	Philadelphia.
Anglo-American Oil Co.	Housatonic	Bulk.	Gas.	199,690	Philadelphia.
Anglo-American Oil Co.	August Korff	Bulk.	Min. Colza.	112,130	Philadelphia.
Anglo-American Oil Co.	August Korff	Bulk.	Lub.	172,700	Philadelphia.
W. Smith & Co.	Chicago City	808	Lub.	32,320	New York.
W. Smith & Co.	Chicago City	20	Lamp.	800	New York.
H. R. James & Sons.	Chicago City	725	Lub.	29,000	New York.
H. R. James & Sons.	Chicago City	120	Min. Colza.	4,800	New York.

CARDIFF.

Homelight Oil Co.	Cymbeline	Bulk.	Lamp.	567,000	Batoum.

GOOLE.

Goole Steam Shipping Co.	Irwell	3	Lub.	120	Hamburg.
Goole Steam Shipping Co.	Moidart	18 pkgs.	Lub.	910	Antwerp.

GRIMSBY.

J. Sutcliffe & Son.	Ashton	20	Lub.	810	Antwerp.

HULL.

W. Gilyott & Co.	Colorado	1,806	Lub.	72,240	New York.
Hull & Netherlands S. S. Co.	Swallow	40 cks.	Tar Oil.	2,600	Rotterdam.
W. Moran & Co.	Novo	1 ck.	Crude.	120	Riga.
Wilsons & N. E. Ry. S.S. Co.	Bruno	6	Lub.	240	Hamburg.
Wilsons & N. E. Ry. S.S. Co.	Otto	101	Lub.	4,040	Antwerp.
Wilsons & N. E. Ry. S.S. Co.	Cito	13	Lub.	520	Hamburg.
Wilsons & N. E. Ry. S.S. Co.	Runo	36	Lub.	1,440	Riga.
Wilsons & N. E. Ry. S.S. Co.	Otto	3	Lub.	120	Antwerp.
Wilsons & N. E. Ry. S.S. Co.	Consuelo	180	Lub.	7,200	New York.
Wilsons & N. E. Rv. S.S. Co.	Juno	400	Lub.	16,000	Hamburg.

MANCHESTER.

Geo. B. Taylor.	Manch. Commerce.	2,015	Lub.	80,600	Philadelphia.
Crew-Levick Co.	Manch. Commerce.	205	Lub.	8,540	Philadelphia.
Liverpool Storage Co.	Manch. Commerce.	230 pkgs.	Lub.	9,200	Philadelphia.
Meade, King, Robinson & Co.	Manch. Commerce.	690	Lub.	27,600	Philadelphia.
Meade, King, Robinson & Co.	Manch. Commerce.	120	Lamp.	4,800	Philadelphia.
Meade, King, Robinson & Co.	Terence	60	Min. Colza.	2,400	New York.
Lamport & Holt.	Terence	20	Lub.	800	New York.
Bramwell, Fern & Co.	Terence	20	Lub.	800	New York.
Geo. B. Taylor.	Terence	3,642	Lub.	145,680	New York.
Liverpool Storage Co.	Terence	259	Lub.	10,560	New York.
Diamond Lub. Co.	Terence	60	Lub.	2 400	New York.
Anglo-American Oil Co.	August Korff	Bulk.	Lamp.	533,050	Philadelphia.
Anglo-American Oil Co.	August Korff	Bulk.	Gas.	173,980	Philadelphia.
Anglo-American Oil Co.	August Korff	Bulk.	Lub.	367,170	Philadelphia.
W. Hodgson & Co.	Rutland	20	Lub.	850	Hamburg.

NEWCASTLE.

Tyne Tees S. S. Co.	New Oporto	5	Lub.	200	Hamburg.
Tyne Tees S. S. Co.	Juno	50	Lub.	2,000	Antwerp.

SWANSEA.

Burgess & Co.	City of Dortmund	15 pkgs.	Lub. Paste.	260	Hamburg.

GLASGOW.

Anchor Line.	Columbia	1,335 pkgs.	Lub.	76,870	New York.

LEITH.

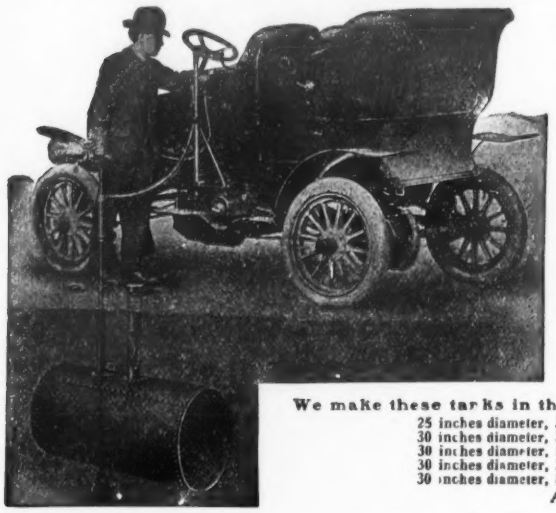
J. Currie & Co.	Ruda	13	Lub.	520	Bremen.
J. Currie & Co.	Weimar	72	Lub.	2,880	Hamburg.
J. Currie & Co.	Breslau	17 pkgs.	Lub.	530	Hamburg.
W. Graham, Yooll & Co.	Breslau	77	Lamp.	3,360	Hamburg.
W. Graham, Yooll & Co.	Cumberland	100	Lamp.	4,360	Hamburg.
Total.				8,065,060	

THE only safe way to store gasolene is in underground, absolutely tight metal tanks, where the gasolene is kept cool and away from all danger of fire.

Our Springfield Tanks

INSURE AGAINST FIRE
INSURE AGAINST LOSS BY LEAKAGE
INSURE YOUR INSURANCE
INSURE AGAINST EVAPORATION
INSURE A CONSTANT SUPPLY OF GASOLENE

Thoroughly endorsed by all insurance companies as the only safe way to store gasolene.



Our tanks are made of heavy galvanized steel, thoroughly riveted and soldered, proven absolutely air and gasolene tight, coated on outside with coal tar, put on hot. All castings and joints on top above liquid. The strongest, most durable and best arranged tank on the market. With each tank goes the fill pipe and vented cap, fill pipe sleeve and cap, pump pipe and cap, pump pipe sleeve and cap, brass pump, tee wrench and four feet hose, making a complete outfit.

Gasolene can be pumped into cans or direct into tank on carriage.

We make these tanks in the following sizes and larger:

25 inches diameter,	30 inches long,	holding 60 gallons,	$26.00
30 inches diameter,	36 inches long	holding 105 gallons,	30.00
30 inches diameter,	53 inches long,	holding 160 gallons,	35.00
30 inches diameter,	71 inches long,	holding 210 gallons,	40.00
30 inches diameter,	87 inches long,	holding 260 gallons,	50.00

All prices Net F. O. B. Springfield, Mass.

How Convenient

it would be to know at any time how much gasolene you have in your storage tank.

You would know when to order to maintain a constant supply or whether your supply would be sufficient for some proposed trip.

It would be a continual source of satisfaction to know just what quantity you bad.

Our patented Gauge Stick shown herewith (broken in two) tells you how many gallons of gasolene there are to every inch of your tank.

It is made long enough to reach bottom and has a cup or pocket to every inch.

The highest cup filled shows amount of gasolene in tank.

Price (for one to five bbl. tanks) **$2.00**

Shall we send you one?

The Breeze Funnel

Separates Water and Dirt from Gasolene---Will Save You Trouble

Any water contained in the gasolene remains at the bottom of the bowl, while the gasolene passes upward through the gauze A and out in the direction of the arrows. When the tank is full the residue is examined by tilting the funnel slightly. The separation is positive, and should there be much water in the gasolene it can readily be detected before it reaches up to the strainer. The gauze is a complete stop to sawdust, shavings and all obstructions.

The funnel is of oval shape and can be easily carried, taking up very little room. **Price $2.00**

GILBERT & BARKER MFG. CO.

80 FOURTH AVE. NEW YORK

STANDARD OIL COMPANY OF NEW YORK

Refiners and Dealers in all Products of Petroleum

DEPOTS IN NEW YORK CITY:

124 Maiden Lane
Foot of East 10th Street
610 and 612 West 46th Street
Foot of East 120th Street

DEPOTS IN BROOKLYN:

Foot of North 10th Street
Greenpoint Av. and Newtown Creek
Corner Bond and First Streets

From which points all grades of Petroleum are delivered by tank wagons, barrels, cases and cans, drums, etc.

LAUNCH NAPHTHA MAY ALSO BE OBTAINED AT ANY OF THE FOLLOWING POINTS

STATEN ISLAND.

NEW BRIGHTON, TOTTENVILLE.

NEW YORK STATE.

CITY ISLAND,
PORTCHESTER,
TARRYTOWN, (Tarrytown Yacht Club)
NEW ROCHELLE,
YONKERS,
MAMARONECK.

LONG ISLAND.

COLD SPRING HARBOR,
EATONS NECK,
GLENWOOD LANDING,
PORT WASHINGTON, (Manhasset Bay Yacht Club)
OYSTER BAY, (Seawanhaka Yacht Club)
COLLEGE POINT, (Knickerbocker Yacht Club)
FREEPORT,
GREENPORT,
LLOYDS NECK,
MONTAUK,
NORTHPORT,
BAYVILLE,
PORT JEFFERSON.

CONNECTICUT.

GREENWICH, STAMFORD, SOUTH NORWALK,
BRIDGEPORT, NEW HAVEN, STONY CREEK,
NEW LONDON, COS COB, NOANK,
STONINGTON, ROWAYTON, MYSTIC.

RHODE ISLAND.

NEWPORT, PROVIDENCE, PAWTUXET,
WICKFORD, EAST GREENWICH, PORTSMOUTH,
BRISTOL, WARREN, BLOCK ISLAND.

MASSACHUSETTS.

FALL RIVER, EAST BOSTON, COTTAGE CITY.
NEW BEDFORD, NANTUCKET,

We also handle a Full Line of Blue Flame Oil Stoves and Smokeless Heaters, Lamps, Etc.

IMPORTS ENTERED AT NEW YORK FOR CONSUMPTION

For the Week Ending April 26, 1907

ACID—20 cboys, Merck & Co, Niew Amsterdam, Rotterdam
5 cboys, Merck & Co, Niew Amsterdam, Rotterdam
BENZOIC—15 cks, H A Metz & Co, Niew Amsterdam, Rotterdam
46 cks, 10,143 lbs, Cont Color & Chem Co, Niew Amsterdam, Rotterdam
CARBOLIC—1 cs, The Roessler & H Chem Co, St Cuthbert, Antwerp
40 drums, Chas Bischoff & Co, Niew Amsterdam, Rotterdam
30 cks, 1,200 gals, S Shepard, Page & Co, Victorian, Liverpool
CITRIC—4 cks, 2,249 lbs, Parke, Davis & Co, Minnehaha, London
OXALIC—50 cks, 273 cwt-3-1-5, J L & D S Riker, Bristol City, Bristol
25 cks, 22,498 lbs, Cont Color & Chem Co, Niew Amsterdam, Rotterdam
PHOSPHORIC—45 crbys, 6,457 lbs, Mallinckrodt Chem Wks, Moitke, Hamburg
86 djns, 10,505 lbs, Mallinckrodt Chem Wks, Maryland, Antwerp
PYROGALLIC—16 kgs, 2 cs, 1,005 lbs, Berlin Anil Works, Batavia, Hamburg
ALBUMEN—4 cs, 844 lbs, Lehn & Fink, Pretoria, Hamburg
ALCOHOL—3 drums, 364 gals, Davis & Lawrence, Tronto, Hamburg
ALIZARINE—6 cs, 5 kgs, 156 cks, Cont Color & Chem Co, Finland, Antwerp
25 cks, 10,386 lbs, Cont Color & Chem Co, Maryland, Antwerp
7 cs, 13 kgs, Cont Color & Chem Co, Maryland, Antwerp
5 cks, 2,100 lbs, Cont Color & Chem Co, Finland, Antwerp
37 cks, 14,751 lbs, Cont Color & Chem Co, Niew Amsterdam, Rotterdam
AMMONIA, CARB—15 cks, 3,472 lbs, Stanley, Jordon & Co, Victorian, Liverpool
MURIATE—30 cks, 34,443 lbs, C D P Field & Co, Bristol City, Bristol
20 cks, 11,296 lbs, A Klipstein & Co, Calabria, Glasgow
SULPHATE—1,000 bgs, 224,436 lbs, Parson & Petit, Cedric, Liverpool
768 bgs, 168,700 lbs, Parson & Petit, Carmania, Liverpool
AMMONIAC, SAL—10 cks, 12,903 lbs, C De P Field & Co, Bristol City, Bristol
ANILINE COLOR—126 cks, 53 cs, 74 kgs, Cont Color & Chem Co, Finland, Antwerp
32 cks, 52 kgs, 7 cs, 25,319 lbs, Berlin Anil Wks, Batavia, Hamburg
211 cks, 51 kgs, 20 cs, Cont Color & Chem Co, Maryland, Antwerp
11 bbls, 3,271 lbs, Nat Anil & Chem Co, Finland, Antwerp
13 bbls, 1 kg, 7,541 lbs, Geigy Anil & Ext Co, Finland, Antwerp
2 bbls, 987 lbs, Amer Dyewood Co, Finland, Antwerp
16 cks, 4,571 lbs, Berlin Anil Wks, Brandenburg, Bremen
5 cks, 1 cs, Amer Dyewood Co, Hudson, Havre
21 cks, 5,500 lbs, Geisenheimer & Co, Lord Erne, Bremen
39 cks, 3,900 lbs, A Klipstein & Co, Maryland, Antwerp
21 bbls, 1 cs, 6,912 lbs, F Bredt & Co, Finland, Antwerp
135 cks, 16 cs, A Klipstein & Co, Finland, Antwerp
2 cks, 976 lbs, Geisenheimer & Co, Chemnitz, Bremen
2 bbls, 264 lbs, H A Metz & Co, Vaderland, Antwerp
DYE—17 bbls, 2 kgs, 5,434 lbs, Heller & Merz Co, Finland, Antwerp
8 kgs, 268 kgs, Cassello Color Co, Niew Amsterdam, Rotterdam
SALT—38 cks, 23,102 lbs, A Klipstein & Co, Maryland, Antwerp
38 cks, 23,117 lbs, A Klipstein & Co, Finland, Antwerp
ANTIMONY—100 cks, 67,200 lbs, Edw Hills' Sons & Co, Toronto, Hull
30 cks, 22,523 lbs, A Seligmann, Gerty, Trieste
28 cks, 22,406 lbs, H I Stettler, Victorian, Liverpool
240 pigs, 19,564 lbs, Amer Metal Co, Finland, Antwerp
45 cks, 24,969 lbs, Coal & Iron Nat Bank, Maryland, Antwerp
25 cks, 14 cks, H J Stettler, Majestic, Liverpool
REGULUS—8 cs, 11,032 lbs, A Seligmann, Gallia, Marseilles
SULPHATE—23 cks, 7,878 lbs, E Shipp & Co, Hudson, Havre
ARSENIC—56 cks, 22,656 lbs, Stanley, Jordan & Co, Bristol City, Swansea
49 cks, 9-16-2-9, Adler Chem Co, Bristol City, Bristol
40 cks, Fuerst Bros Co, Hudson, Havre
40 cks, 22,000 lbs, A Klipstein & Co, Maryland, Antwerp
ASPHALTUM—4,050 cks, Gabriel & Schall, Chemnitz, Bremen
284 bgs, 25 tons, Warren Chem & Mfg Co, Maracas, Trinidad
BALSAM, COPAIBA—2 cs, 160 lbs, Schuke, Gieschen & Co, Pr Eitel Fredk, Colombia
12 cs, 1,110 lbs, Suzarte & Whitney, Maracaibo, Maracaibo
BARK, MANGROVE—2,017 bgs, 400,444 lbs, A Klipstein & Co, Niew Amsterdam, Rotterdam
135 sks, 20,240 lbs, W & A Leaman, Gallia, Marseilles
1,062 bgs, R del Gallego & Co, Pr W IV, Curacoa
MEDICINAL—24 bls, 3,359 lbs, Parke, Davis & Co, Niew Amsterdam, Rotterdam
5 bls, 1,251 lbs, Frank Netschert Co, Batavia, Hamburg
BARYTES—252 cks, 114.69 tons, J W Coulston & Co, Brandenburg, Bremen
60 cks, 29.7 tons, J Lee Smith & Co, Brandenburg, Bremen
141 cks, 39½ tons, A Klipstein & Co, Finland, Antwerp
47 cks, 19.57 tons, Nat Anil & Chem Co, Niew Amsterdam, Rotterdam
283 cks, 114.19 tons, J W Coulston & Co, Niew Amsterdam, Rotterdam
78 cks, 150 bgs, 44.38 tons, Gabriel & Schall, Chemnitz, Bremen
BEANS, VANILLA—1 cs, 98,489 lbs, H Marquardt & Co, Victorian, Liverpool
10 cs, 1,889 lbs, Amer Trad Co, Merida, Vera Cruz
22 cs, 2,435 lbs, H Marquardt & Co, La Savole, Havre
4 cs, 501 lbs, Amer Trad Co, Merida, Vera Cruz
14 cs, H Marquardt & Co, Oceanic, Liverpool
28 cs, H Marquardt & Co, La Provence, Havre
BERRIES, JUNIPER—25 bgs, 2,750 lbs, Maltas & Ware, Niew Amsterdam, Rotterdam
BINITRO BENZOLE—12 cks, 10,797 lbs, Heller & Merz Co, Maryland, Antwerp
BITUMEN—40 cks, Gabriel & Schall, Chemnitz, Bremen
BISMUTH—3 cs, E R Squibb & Co, St Louis, Southampton
BLANC FIXE—4 cks, 2,601 lbs, Gabriel & Schall, Niew Amsterdam, Rotterdam
13 cks, 9,942 lbs, Kramer & Foster, Niew Amsterdam, Rotterdam
20 cks, 21,898 lbs, Kramer & Foster, Chemnitz, Bremen
BLEACHING POWD—43 cks, 57,249 lbs, Arnold Hoffman & Co, Victorian, Liverpool
191 cks, 272,030 lbs, J L & D S Riker, Victorian, Liverpool
190 cks, 129,639 lbs, A Klipstein & Co, Finland, Antwerp
BORAX—80 cks, 33,875 lbs, Pretegit & Co, Cegric, Liverpool
BRISTLES—2 cks, 11 cs, 2,441 lbs, Davies, Turner & Co, St Louis, Southampton
10 cs, 2,205 lbs, F W van Staae, La Provence, Havre
28 cs, 2 cks, 5,372 lbs, O J Teeple, Campania, Liverpool
1 cs, 188 lbs, M Fischbaum & Sons, Kr Pr Wm, Bremen
BRONZE METAL CLIPPINGS—13 cs, G Benda, Chemnitz, Bremen
POWD—2 cs, 600 lbs, R F Lang, Chemnitz, Bremen
14 cs, Bronze, Powd Works, Brandenburg, Bremen
5 cs, B F Drakenfels & Co, Brandenburg, Bremen
21 cs, Baer Bros, Brandenburg, Bremen
11 cs, 4,350 lbs, Gerstenaoerrer Bros, Chemnitz, Bremen
30 cs, Baer Bros, Chemnitz, Bremen
4 cs, G Benda, Chemnitz, Bremen
6 cs, B F Drakenfels & Co, Chemnitz, Bremen
10 cs, 2,000 lbs, L Uhlfelder, Brandenburg, Bremen
7 cs, 2,000 lbs, A Sartorius, Brandenburg, Bremen
5 cs, 1,500 lbs, L Rosenhampt, Brandenburg, Bremen
CAMPHOR—22 cs, Stallman & Fulton Co, Minnehaha, London
4 cks, 2,225 lbs, Stallman & Fulton Co, Horncap, Hamburg
CHALK—210 bgs, 23,100 lbs, Eagle Pencil Co, Brandenburg, Bremen
CHEMICAL—27 cboys, 20 bbls, 28 cs, 3 dms, Merck & Co, New Amsteraam, Rotterdant
10 cks, 1,461 lbs, Lehn & Fink, Pretoria, Hamburg
COMP—20 cs, 2,000 lbs, Cont Color & Chem Co, Maryland, Antwerp
8 cs, J Mannelmer, Philadelphia, Southampton
25 cs, 2,500 lbs, Cont Color & Chem Co, Finland, Antwerp
50 cds, Merck & Co, Brandenburg, Bremen
2 cs, 250 lbs, Merck & Co, Kr Pr Wm, Bremen
10 cs, 165 lbs, W J Bush & Co, Minnehaha, London
35 cks, 37 cs, 19,205 lbs, Cont Color & Chem Co, Niew Amsteraam, Rotterdam
35 cs, 5,247 lbs, Merck & Co, Chemnitz, Bremen
2 cs, Dodge & Olcott Co, La Provence, Havre
3 cbys, 2 cs, 512 lbs, Lehn & Fink, Amerika, Hamburg
PREP—12 cs, B F Drakenfels & Co, Chemnitz, Bremen
1 cs, C Bischoff & Co, Brandenburg, Bremen
2 cs, 103 lbs, The Roessler & H Chem Co, Kr Pr Wm, Bremen
3 cs, 682 lbs, H Lieber & Co, Kr Pr Wm, Bremen
3 cks, The Roessler & H Chem Co, New Amsterdam, Rotterdam
2 cs, Cassello Color Co, New Amsterdam, Rotterdam
SALT—28 cks, 11 tons, 6-18, A Klipstein & Co, Victorian, Liverpool
28 cs, E Levi, Niew Amsterdam, Rotterdam
14 dms, 5,080 lbs, Oscar P Sinkelsen, Niew Amsterdam, Rotterdam
60 cks, 42,629 lbs, A Klipstein & Co, Finland, Antwerp
1 cs, 100 lbs, W J Bush & Co, Minnehaha, London
25 cks, 13,322 lbs, Cont Color & Chem Co, Niew Amsteraam, Rotterdam
85 cks, 88,695 lbs, Gabriel & Schall, Horncap, Hamburg
CHILLIES—277 bgs, 30,470 lbs, Frame & Co, Republic, Naples
CINNAMON—10 bls, 3,360 lbs, Isaac Vought & Co, Swanley, Colomba
50 bls, 200 cwt, G Amsinck & Co, Swanley, Colomba
CLAY—164 cs, 54 cks, 64.79 tons, T Goebel, Kr Pr Wm, Bremen
19 cks, 9.16 tons, T Goebel, Kr Pr Wm, Bremen
BLUE—34 cks, 42,361 lbs, E Thiele, Amerika, Hamburg
CHINA—69 cks, 30 tons, R F Lang, Armenian, Liverpool
CLOVES—100 bls, 13,205 lbs, Frame & Co, Minnehaha, London
190 bls, 11-8-0-0, Wiswall & Tichenor, Minnehaha, London
200 mates, 26,551 lbs, Kurka Bros, New Amsterdam, Rotterdam
200 mates, 24,537 lbs, Farrington & Whitney, Niew Amsterdam, Rotterdam
800 mates, 115,474 lbs, John Clark & Co, Niew Amsterdam, Rotterdam
COAL TAR PREP—8 cs, Cont Color & Chem Co, Finland, Antwerp
14 kgs, 6 cs, 2,541 lbs, Berlin Anil Works, Batavia, Hamburg
42 cks, 9 tons, 16-1-10, Merck & Co, Victorian, Liverpool
10 dms, 11,116 lbs, Heller & Merz Co, Finland, Antwerp
1 ck, 550 lbs, Heller & Merz Co, Finland, Antwerp
2 cks, A Klipstein & Co, Finland, Antwerp
45 cks, H A Metz & Co, New Amsterdam, Rotterdam
10 cks, 5,000 lbs, Cont Color & Chem Co, Niew Amsteraam, Rotterdam
COCOA BUTTER—100 bls, 17,700 lbs, Habrecht, Braun & Co, Niew Amsterdam, Rotterdam
30 bgs, 7,044 lbs, Wood & Sellick, Niew Amsterdam, Rotterdam
COLORS—13 cks, Siemon & Elting, Niew Amsterdam, Rotterdam
10 cks, 1 cs, G Siegle Co, Niew Amsterdam, Rotterdam
74 cks, Hensel, Bruckman & Lorbacher, Niew Amsterdam, Rotterdam
2 cks, Cassella Color Co, Niew Amsterdam, Rotterdam
65 cs, 6 ton-10-0-6, Standard Varnish Co, Minnehaha, London
5 cks, 21 cwt-2-18, Halzapfels Am Comp Co, Victorian, Liverpool
1 cs, Binney & Smith, Victorian, Liverpool
42 bbls, 163,152 lbs, Heller & Merz Co, Maryland, Antwerp
15 bbls, 45 kgs, 13,410 lbs, F L Lavenberg, Toronto, Hull
55 cks, 1 cs, 30,417 lbs, Chas F Zentgraf, Batavia, Hamburg
1 cs, 25 lbs, Geo Lueders & Co, Brandenburg, Bremen
2 cks, C Bischoff & Co, Brandenburg, Bremen
19 bbls, 6,943 lbs, Siemon & Elting, Maryland, Antwerp
32 cks, 22,626 lbs, A B Ansbacher & Co, Finland, Antwerp
3 cs, Morris European & Am Express Co, Kr Pr Wm, Bremen
12 bbls, 2-11-3-10, Hemingway & Co, Minnehaha, London
COAL TAR—142 cks, 1 cs, 35,963 lbs, Cont Color & Chem Co, Maryland, Antwerp
85 cks, 3 cs, 23,105 lbs, Cont Color & Chem Co, Finland, Antwerp
289 cks, H A Metz & Co, Niew Amsterdam, Rotterdam
142 cks, 24 cs, 35,994 lbs, Cont Color & Chem Co, Niew Amsterdam, Rotterdam
PAINTERS'—38 cks, 21,698 lbs, Felix Fezandie, Chemnitz, Bremen
90 cks, 29,497 lbs, Gabriel & Schall, Brandenburg, Bremen
4 cks, 1,063 lbs, Felix Fezandie, Maryland, Antwerp
CORKS—10 bls, 1,429 lbs, L Mundet & Sons, Toronto, Hull
3 bls, 326 lbs, Franc, Llado, Farrell & Co, Gallia, Marseilles
SHAVINGS—310 bls, 83,624 lbs, Weaver & Lea Co, St Cuthbert, Antwerp
WOOD—25 bls, 3,755 lbs, Lawrence, Johnson & Co, Batavia, Hamburg
142 bndls, 25,168 lbs, W J Farrell, Batavia, Hamburg
762 bls, 126,194 lbs, Danziger Bros, Toronto, Hull
53 bls, Franc, Llado, Farrell & Co, Emmi Arp, Gibraltar
12 bls, Gudwell & Bucknall, Oceanic, Lpool
643 bls, Gudwell & Bucknal, Victorian, Liverpool
CREOSOTE—49 cks, 10 tons-1, Robbins Chem Co, Armenian, Liverpool
DEXTRINE—200 bgs, 43,431 lbs, Chas Morningstar & Co, United States, Copenhagen
335 bgs, 72,636 lbs, Stein, Hirsh & Co, United States, Copenhagen
DRUGS—12 cs, 2,427 lbs, Parke, Davis & Co, St Louis, Southampton
10 bls, 2,200 lbs, P E Anderson & Co, Gallia, Marseilles
15 cs, Dodge & Olcott, Hudson, Havre
18 cs, 1,103 lbs, Dodge & Olcott, La Savole, Havre
2 cs, 87 lbs, Lehn & Fink, Pretoria, Hmbg
15 cs, 1,680 lbs, Lunman & Moore, St Louis, Southampton
DYEWOOD EXTRACT—15 cks, 6,997 lbs, A Klipstein & Co, Batavia, Hamburg
EARTH—18 cs, 10.39 tons, Amer Pencil Co, Chemnitz, Bremen
FULLER'S—500 bgs, 40 tons, L A Salomon & Bro, Minnehaha, London
SIENNA—25 cks, 12,288 lbs, J Lee Smith & Co, Calabria, Leghorn
100 bgs, 22,046 lbs, J W Coulston & Co, Calabria, Leghorn
87 cks, 46,668 lbs, Paul Uhlich, Calabria, Leghorn
14 cks, 5,853 lbs, C B Asborn & Co, Gallia, Marseilles
UMBER—35 cks, 24,798 lbs, J Lee Smith & Co, Bristol City, Bristol
ETHER SULP—1 cs, 5 lbs, McKesson & Robbins, Maryland, Antwerp
FERTILIZER—709 bgs, 154,000 lbs, H O Baker & Bro, New Amsterdam, Rotterdam
570 bgs, Heller, Hirsh & Co, Victorian, Liverpool
1,533 bgs, 98 tons, 4-2-9, H J Baker & Bro, Victorian, Liverpool
1,354 bgs, 229,724 lbs, H J Baker & Bro, St Cuthbert, Antwerp
1,000 bgs, 224,000 lbs, W W Thomas & Co, Cornear, Hamburg
1,040 bgs, 100 tons, Mapes, Formula & Peruvian Guano Co, New Amsterdam, R'dam
1,687 bgs, 81,400 lbs, H J Baker & Bro, Indiana, Buenos Aires
1,750 bgs, 308,000 lbs, H J Baker & Bro, Neustria, Marseilles
500 bgs, 111,760 lbs, H J Baker & Bro, St Cuthbert, Antwerp
FISH SOUNDS—3 sks, 700 lbs, Ridel, Gallega & Co, Maracaibo, Maracaibo
FLOWER, MEDICINAL—73 bls, 26,153 lbs, Parke, Davis & Co, Francesco, Trieste
1 bl, Parke, Davis & Co, Gerty, Trieste
3 bls, 660 lbs, J L Hopkins & Co, Horncap, Hamburg
3 bls, 300 lbs, J L Hopkins & Co, Pretoria, Hamburg
SAFFRON—2 cs, 199 lbs, Parke, Davis & Co, La Savole, Havre
FLORAL WATER—20 cs, 2,300 lbs, Lehn & Fink, Neustria, Grasse
FUSTIC—1,800 pcls, 156,500 lbs, Suzarte & Whitney, Pr Wm IV, Bolivar
GELATINE—50 cs, 5,020 lbs, Oscar P Zinkelsen, Niew Amsterdam, Rotterdam
76 cs, 6,873 lbs, Paul Puttmann, Niew Amsterdam, Rotterdam
GINGER—61 bgs, 6,922 lbs, Frame & Co, Carmania, Liverpool
280 bgs, 32,881 lbs, Frame & Co, Minnehaha, London
99 bgs, 10,000 lbs, A S Lascelles & Co, Pr Eitel Fredk, Kingston
GLASS CYLINDER—91 cs, 14,225 lbs, L Popper & Sons, Finland, Antwerp
66 bxs, 6 cs, 14,046 lbs, L Popper & Sons, Cedric, Liverpool
108 cs, 10,604 lbs, L Popper & Sons, Finland, Antwerp
7 cs, Pittsburg Plate Glass Co, Finland, Antwerp
38 cs, 3,122 lbs, T W Morris & Co, Cedric, Liverpool
PLATE—10 cs, 5,550 sq ft, J Kahn, Vaderland, Antwerp
7 cs, J Kahn, Vaderland, Antwerp
4 cs, 2,116 sq ft, Semon Bache & Co, Maryland, Antwerp
1 cs, 83 sq ft, Kramer & Foster, Maryland, Antwerp
4 cs, Holbrook Bros, St Cuthbert, Antwerp
5 cs, 2,861 sq ft, Benj Griffen, St Cuthbert, Antwerp
3 cs, 1,744 sq ft, Bendet, Drey & Co, Finland, Antwerp
22 cs, 12,774 sq ft, A Riegelmann, Finland, Antwerp
18 cs, 6,175 sq ft, Pittsburg Plate Glass Co, Finland, Antwerp
12 cs, 6,158 sq ft, Pittsburg Plate Glass Co, Finland, Antwerp
7 cs, 3,423 sq ft, Semon Bache & Co, Oceanic, Liverpool
4 cs, 2,500 sq ft, C D Cooper & Co, Finland, Antwerp
3 cs, 1,670 sq ft, Louis Goldstein, Finland, Antwerp
4 cs, 2,500 sq ft, Kramer & Foster, Vaderland, Antwerp
WINDOW—172 cs, 18,356 lbs, Semon Bache & Co, Maryland, Antwerp
1,551 bxs, 193,537 lbs, Holbrook Bros, St Cuthbert, Antwerp
426 cs, 26,136 lbs, Benj Griffen, St Cuthbert, Antwerp
350 cs, 32,140 lbs, Pittsburg Plate Glass Co, Finland, Antwerp
295 cs, 17,065 lbs, Royal Glass Works, Finland, Antwerp
23 bxs, 6,742 lbs, Semon Bache & Co, Oceanic, Liverpool
25 bxs, 5 cs, 5,369 lbs, T W Morris & Co, Oceanic, Liverpool
317 cs, 25,300 lbs, Kramer & Foster, Vaderland, Antwerp
175 cs, 11,725 lbs, Royal Glass Works, Vaderland, Antwerp
GLUE—40 bls, 4,646 lbs, C Simons & Co, Maryland, Antwerp
80 bls, 8,959 lbs, E B Hutchinson, St Cuthbert, Antwerp
200 bgs, 22,400 lbs, A K Gardiner & Bro, Bristol City, Bristol
10 cks, 7,279 lbs, S Isaac & Co, Hudson, Havre
43 bls, 4,816 lbs, Milligin, Higgins Glue Co, Finland, Antwerp
100 bgs, 11,000 lbs, Paul Puttmann, Carmania, Liverpool
GLYCERINE—60 dms, 43,640 lbs, Marx & Rawalle, Maryland, Antwerp
21 dms, 23,795 lbs, Marx & Rawalle, Bristol City, Bristol
40 dms, 44,652 lbs, Marx & Rawalle, Gallia, Marseilles
20 dms, 23,459 lbs, Amer Express Co, Gallia, Marseilles
25 dms, 22,037 lbs, Amer Express Co, Gerty, Trieste
30 dms, 32,952 lbs, C J Schilling & Co, Neustria, Marseilles
10 dms, 10,948 lbs, Alpers & Mott, Neustria, Marseilles
GREASE, WOOL—50 cks, 18,561 lbs, A Klipstein & Co, Toronto, Hull
100 cks, 38,076 lbs, Otto Hahn & Bro, Chemnitz, Bremen
400 bbls, 153,945 lbs, Swan & Finch Co, Chemnitz, Bremen
50 bbls, 18,603 lbs, Swan & Finch Co, Finland, Antwerp
GUM—50 cks, 14,157 lbs, A De Ronde & Co, Maryland, Antwerp
20 bgs, 4,400 lbs, F Bredt & Co, Finland, Antwerp
ARABIC—50 bls, 151 cwt, 2-22, P E Anderson & Co, Liguria, Cairo
36 bgs, Thurston & Braidich, Oceanic, Liverpool
ASAFOETIDA—17 bxs, 1,518 lbs, McKesson & Robbins, Minnehaha, London
COPAL—48 bgs, 3 tons, 16-3-3, A Mason, Minnehaha, London
28 bgs, 2 cks, 46 cwt, A Mason, St Louis, Southampton
45 cs, 80 cwt, 0-6, G Wrechman, Brandenburg, Bremen
DAMAR—350 cs, 47,600 lbs, L C Gillespie & Sons, Victorian, Liverpool
MED—5 bls, 1,100 lbs, J L Hopkins & Co, Parmonia, Trieste
6 bls, 1,200 lbs, J L Hopkins & Co, Parmonia, Trieste
TRAG—18 cs, 36 cwt, 1-23, P E Anderson & Co, Minnehaha, London
116 cs, 116 bgs, 37,451 lbs, Parke, Davis & Co, St Louis, Southampton
GYPSUM—40 cks, 21.35 tons, F A Reichard, Gallia, Marseilles
HERB CRUDE—7 bls, 3,275 lbs, McKesson & Robbins, Gerty, Trieste
MED—10 bls, 12 bgs, 5,119 lbs, Peek & Velsor, Francesco, Marseilles
6 bls, 1,302 lbs, Lehn & Fink, Amerika, Hamburg
INDIGO—60 cks, 26,168 lbs, Cont Color & Chem Co, Maryland, Antwerp
122 cks, 55,248 lbs, Cont Color & Chem Co, Finland, Antwerp
37 chts, 10,200 lbs, Gray Bros, Swanley, Calcutta
EXTRACT—2 cks, 200 lbs, Cont Color & Chem Co, Finland, Antwerp
IODINE—85 kgs, 8,181 lbs, Watjen, Loeb & Co, Allianca, Colon
LEAVES, BAY—32 bls, 14,850 lbs, L W & P Armstrong, Gallia, Marseilles
BUCHU—20 bls, 5,103 lbs, Parke, Davis & Co, St Louis, Southampton
25 bls, 6,887 lbs, F B Ross & Co, St Louis, Southampton
10 bls, 2,000 lbs, P E Anderson & Co, St Louis, Southampton
LAUREL—50 bgs, 13,055 lbs, Nat Spice Co, Francesca, Trieste
28 bls, Austin, Nichols & Co, Gerty, Trieste
MEDICINAL—25 bls, 6,872 lbs, Stallman & Fulton Co, Cedric, Liverpool
8 bls, 8,857 lbs, Winter & Smillie, Hudson, Havre
25 bls, 11,270 lbs, F B Vandegrift & Co, Carmania, Liverpool
50 bls, 11,000 lbs, Parke, Davis & Co, Gerty, Trieste
19 bgs, 2,200 lbs, J L Hopkins & Co, Pretoria, Hamburg
ROSE—7 bls, 2,501 lbs, R Hillier, Sons & Co, Victorian, Liverpool
SENNA—100 bls, 350 cwt, 2-8, Parke, Davis & Co, Cedric, Liverpool
LICORICE JUICE—31 cs, 6,878 lbs, McKesson & Robbins, Calabria, Naples
15 cs, 3,502 lbs, Chas W Jacob & Allison, Mongibello, Catania
LIME, CARBONATE—125 cks, 425 cwt, Nat Anil & Chem Co, Victorian, Liverpool
CHLORIDE—22 bbls, 67,015 lbs, F A Reichard, Finland, Antwerp
CITRATE—1 ck, 1,100 lbs, Geo Lueders & Co, Republic, Genoa
JUICE—10 cks, 10 cs, 562 gals, T A Hedley, Campania, Liverpool
LOGWOOD—1 lot, 50 tons, A Deuzens & Co, Alleghany, Port du Paix
27 tons, W & A Leaman, Cherokee, Azna
1 lot, 100,000 lbs, O C Kanzow, Venetia, Gonaives
2 lots, 142,000 lbs, A Behrens & Co, Venetia, Gonaives
EXTRACT—178 cks, 71,645 lbs, T W Toone & Co, Pr Eitel Fredk, Kingston
MACE—40 cs, 13,092 lbs, Frame & Co, Toronto, Rotterdam
25 cs, 3,502 lbs, John Kissock & Co, New Amsterdam, Rotterdam
MAGNESIA CALC—12 cs, 2,688 lbs, G W Dix, Oceanic, Liverpool
9 cs, 1,910 lbs, Lehr & Fink, Pretoria, Hamburg
CITRATE—115 cs, 10,373 lbs, C Ceriballi & Co, Moitke, Hamburg
MAGNESITE—5,957 bgs, 1,266,691 lbs, Harbeson-Walker Ref Co, Francesca, Trieste
MANGANESE—20 bbls, 19,529 lbs, E C Riebe & Co, Finland, Antwerp
MED BERRIES—2 bls, 1 bg, 392 lbs, Peek & Velsor, Gallia, Trieste
PREP—10 cs, J Wallan, La Savole, Havre
15 cs, 495 lbs, A Dinklage, Kr Pr Wm, Bremen
29 cs, 1,146 lbs, Hensel, Bruckman & Lorbacher, Brandenburg, Bremen
18 cs, 5 cs, E Fougera & Co, La Savole, Havre
60 cs, Merck & Co, Minnehaha, London
8 cs, 1,900 lbs, Giuseppe Gesualdi, Republic, Naples
15 cs, 561 lbs, A Dinklage, Chemnitz, Bremen
5 cs, E Fougera & Co, La Provence, Havre
5 cs, Lehn & Fink, Mesaba, London
WINE—5 cs, Lehn & Fink, Statendam, Rotterdam
NAPHTOL—10 cs, 996 lbs, Cont Color & Chem Co, Finland, Antwerp
9 cks, 4,796 lbs, Heller & Merz Co, Niew Amsterdam, Rotterdam
1 ck, H A Metz & Co, Niew Amsterdam, Rotterdam
NAPHTHALINE—147 bbls, 37,364 lbs, Lewey Chem Co, United States, Copenhagen
37 cks, 12,531 lbs, Lewey Chem Co, United States, Copenhagen
240 bbls, 77,517 lbs, The Roessler & H Chem Co, St Cuthbert, Antwerp
66 cks, 34,707 lbs, Chas Bischoff & Co, Tronto, Rotterdam
90 cks, 25,031 lbs, Lewey Chem Co, Tronto, Rotterdam
40 cks, 11,427 lbs, Fuerst Bros & Co, Finland, Antwerp
84 bbls, 22,176 lbs, Nat Anil & Chem Co, Finland, Antwerp
NITRATE STRONTIA—30 cks, 23,038 lbs, Chem Imp & Mfg. Co., Niew Amsterdam, Rotterdam
NITRO BENZOLE—10 drms, 12,194 lbs, Berlin Anil Work, Batavia, Hamburg
NUTMEG—2 bls, 302 lbs, Stallman & Fulton Co, Minnehaha, London
65 cs, 11,781 lbs, John Clark & Co, Niew Amsterdam, Rotterdam
NUX VOMICA—211 bgs, 263 cwt, 3-0, Hensel, Bruckmann & Lorbacher, Swanley, Colombo
OIL, ANILINE—3 drms, 3,841 lbs, Berlin Anil Work, Batavia, Hamburg
25 drms, 25,519 lbs, H A Metz & Co, Minnehaha, London
ALMOND—2 drms, A A Stillwell & Co, Minnehaha, London
15 cs, 1,210 lbs, Geo Lueders & Co, Gerty, Trieste
1 ck, 325 lbs, W J Bush & Co, Minnehaha, London
50 cks, A Klipstein & Co, Victorian, Liv-
8 cs, Dodge & Olcott, La Provence, Havre
16 cs, 1,204 lbs, Lehn & Fink, Neustria, Grasse

BERGAMOT—58¼ cs, 1,450 lbs, Euler & Robeson, Republic, Naples
25 cs, 622 lbs, Farrington & Whitney, Moltke, Genoa
CHINA WOOD—5 bbls, 1,973 lbs, Schieffelin & Co, Neustria, Marseilles
15 bbls, 6,072 lbs, McKesson & Robbins, Neustria, Marseilles
20 cks, 7,937 lbs, Welch & Welch, Neustria, Marseilles
COCOANUT—47 cks, 83,518 lbs, Winter & Smillie, Minnehaha, London
30 cks, 56,018 lbs, Robt Crooks & Co, Petersburg, London
77 pipes, 34 punc, 13 hhds, 2,003 cwt, Patterson, Boardman & Co, Swanley, Colombo
39 cks, 23 tons, 14-0-13, Core & Herbert, Oceanic, Liverpool
20 cks, 245 cwt, Patterson, Boardman & Co, St Louis, Southampton
CODLIVER—15 cs, E Fougera & Co, Minnehaha, London
100 bbls, 3,000 gals, Lehn & Fink, Colorado, Hull
CITRONELLA—11 dms, 11,737 lbs, Edw Hills Sons & Co, Swanley, Colombo
7 dms, 60 cwt, 0-6, Dodge & Olcott, Swanley, Colombo
CREOSOTE—550 bbls, Nat Anil & Chem Co, Victorian, Liverpool
50 cks, A Klipstein & Co, Victorian, Liverpool
DEGRAS—20 cks, 7,377 lbs, Lunham & Moore, La Gascogne, Havre
ESST—3 cs, 812 lbs, Lehn & Fink, La Provence, Havre
13 cs, 1,018 lbs, Lehn & Fink, Amerika, Hamburg
5 cs, Lehn & Fink, Pretoria, Hamburg
20 cs, 1,760 lbs, Magnus, Maber & Raynard, Victorian, Liverpool
3 cs, T H Grossmith, La Provence, Havre
7 cs, Emil Utard, La Provence, Havre
2 cs, 50 lbs, Geo Lueders & Co, Brandenburg, Bremen
14 cs, Fritzsche Bros, Brandenburg, Bremen
40 cs, Dodge & Olcott, Minnehaha, London
2 cbys, Merck & Co, Nlew Amsterdam, Rotterdam
3 cs, 2 cs, Geo Lueders & Co, Chemnitz, Bremen
50¼ cs, 1,250 lbs, Geo Lueders & Co, Republic, Genoa
FUSEL—54 cks, 24,473 lbs, T Hofacker, Toronto, Hamburg
7 bbls, 9,976 lbs, Rockhill & Vietor, Toronto, Hamburg
30 cks, 16,247 lbs, Nat Anil & Chem Co, Toronto, Hamburg
12 cks, 10,983 lbs, Maas & Waldstein, Toronto, Hull
1 ck, 331 lbs, Geo Lueders & Co, Brandenburg, Bremen
6 dms, 4,019 lbs, Franklin, Klabfleisch Co, Lord Erne, Hamburg
HAARLEM—60 cs, 7,920 lbs, D E Mullane, Nlew Amsterdam, Rotterdam
15 cs, Lehn & Fink, Statendam, Rotterdam
JUNIPER—9 cs, 1,155 lbs, Geo Lueders & Co, Gerty, Trieste
LAVENDER—13 cs, 1,120 lbs, Lauman & Kemp, Neustria, Marseilles
17 cs, Ungerer & Co, Neustria, Marseilles
1 cs, C H Grossmith, La Savole, Havre
LEMON—100¼ cs, 2,500 lbs, Rockhill & Vietor, Moltke, Messina
6 bbls, 2,668 lbs, Elbert & Westerman (inc), Oceanic, Liverpool
25 bbls, 10,247 lbs, Oil Seed Co, Finland, Antwerp
SOD—28 bbls, 5-5, Swan & Finch Co, Bristol City, Bristol
TAR—50 cks, 23,608 lbs, Geisenheimer & Co, Lord Erne, Bremen
50 bbls, 24,090 lbs, M Grosche, Nlew Amsterdam, Rotterdam
OCHER, PWD—300 cks, 219,988 lbs, F A Reichard, Gallia, Marseilles
140 cks, 115,007 lbs, J Lee Smith & Co, Gallia, Marseilles
20 cks, 15,540 lbs, W H Fales Co, Gallia, Marseilles
375 cks, 297,568 lbs, J W Coulston & Co, Gallia, Marseilles
ORCHILL LIQUOR—5 cks, Read, Holliday & Co, Victorian, Liverpool
PARAFFINE—25 cks, 8,751 lbs, Zinkhelsen & Co, Finland, Antwerp
PARIS WHITE—100 bgs, 22,400 lbs, J Lee, Smith & Co, Toronto, Hull
PEPPER—5 cs, 234 lbs, Meyer & Lang, Batavia, Hamburg
7 cs, 214 lbs, Meyer & Lang, Amerika, Hamburg
BLACK—500 bgs, 55,775 lbs, E R Durkee & Co, Nlew Amsterdam, Rotterdam
500 bgs, 34,374 lbs, J Clark & Co, Nlew Amsterdam, Rotterdam
700 bgs, J Clark & Co, Nlew Amsterdam, Rotterdam
PIMENTO—500 bgs, 74,890 lbs, J E Kerr & Co, Baker, Jamaica
250 bgs, 36,348 lbs, A S Lascelles & Co, Pr Eitel Fredk, Kingston
PITCH—55 bbls, 20 cks, 22-17-3-0, Thomas & Pierson, Toronto, Hull
BERGUNDY—300 stands, 371,290 lbs, Parke, Davis & Co, Nlew Amsterdam, Rotterdam
MANJAK—325 bgs, 30½ tons, C P Shilstone, Maranhense, Barbados
STEARINE—58 bbls, 26,358 lbs, Thomas & Pierson, Toronto, Hamburg
104 bbls, 471-cwt-2-2, J A & W Bird Co, Toronto, Hull
110 cks, 53,741 lbs, Moore & Munger, Hudson, Havre
74 cks, 39,325 lbs, J A & W Bird Co, Lord Erne, Rotterdam
142 bbls, 66,286 lbs, Standard Varnish Co, Neustria, Marseilles
94 bbls, 44,176 lbs, W H Boche, Neustria, Marseilles
PLUMBAGO—91 bales, 504-cwt-0-11, C B Richard & Co, Swanley, Colombo
98 bbls, 497 cwt, Patterson, Boardman & Co, Swanley, Colombo
516 bbls, 80 bgs, 319,677 lbs, Robt Crooks & Co, Swanley, Colombo
394 bbls, 2183-cwt-0-3, H W Peabody & Co, Swanley, Colombo
125 bbls, 817-1-23, Chevaller Bros, Swanley, Colombo
POTASH—1,407 bgs, 221,947 lbs, F W Simonds & Co, St Cuthbert, Antwerp
10 cks, 11,329 lbs, Edw Hill's Sons & Co, Maryland, Antwerp
CARB—10 bbls, 12,595 lbs, F B Vandegrift & Co, Maryland, Antwerp
CAUSTIC—40 dums, 23,313 lbs, A Klipstein & Co, Finland, Antwerp
25 dums, 13,684 lbs, Edw Hill's Sons & Co, Finland, Antwerp
20 dums, 10,797 lbs, A Klipstein & Co, Maryland, Antwerp
10 bgs, 2,063 lbs, A S Lascelles & Co, Pr Eitel Fredk, Kingston
CARAWAY—150 bgs, 16,500 lbs, Archibald & Lewis, Nlew Amsterdam, Rotterdam
FENNEL—14 bgs, 2,288 lbs, Parke, Davis & Co, Gallia, Marseilles
FENUGREEK—105 bgs, 207 cwt-3-4, P E Anderson & Co, Cedric, Liverpool
HEMP—100 bgs, 21,670 lbs, J D Nordlinger, United States, Copenhagen
MEDICINAL—10 bls, 2,214 lbs, P E Anderson & Co, Neustria, Marseilles
10 bls, 10 bgs, 4,422 lbs, Peek & Velsor, Gallia, Marseilles
103 bgs, 99 cwt-1-8, Dodge & Olcott Co, Swanley, Colombo
MUSTARD—100 bls, 22,000 lbs, Hensel, Bruckman & Lorbacher, Francesca, Trieste
250 bgs, 56,000 lbs, E R Durkee & Co, Minnehaha, London
SHELLAC—13 cs, 2,556 lbs, Restroff & Bellman, Tronto, Rotterdam
205 cs, 33,941 lbs, Rogers ⅞ Pyatt, Tronto, Hamburg
50 bgs, Knauth, Nachod & Kuhne, Koranna, Calcutta
23 chts, 47-3-0, L C Gillespie & Sons, Swanley, Calcutta
167 chsts, Hoople & Nichols, Swanley, Calcutta
630 chsts, 473 bgs, 2,082-27-12, Rogers & Pyatt, Swanley, Calcutta
200 chsts, E E Androvette, Swanley, Calcutta
150 chsts, G A Alden & Co, Swanley, Calcutta
75 chsts, 150-17-0, O S Janney & Co, Swanley, Calcutta
25 chsts, H W Peabody & Co, Swanley, Calcutta
SOAP, CASTILE—100 bxs, 3,836 lbs, Schieffelin & Co, Neustria, Marseilles
100 bxs, 3.987 lbs, McKesson & Robbins, Neustria, Marseilles
1,150 bxs, 47,670 lbs, Weaver & Sterry, Calabria, Leghorn
SODA, ARSENATE—7 cks, 6,884 lbs, A Klipstein & Co, Carmania, Liverpool
ASH—102 cks, 179,580 lbs, J L & D S Riker, Cedric, Liverpool
SULPHATE—15 cks, 3.56 tons, Harschaw, Fuller & Goodwin, Amerika, Hamburg
SPONGES—19 bls, A Isaacs & Co, Seguranca, Nassau
13 bls, Lasker & Bernstein, Havana, Havana
STARCH—175 bgs, 38,001 lbs, Chas Morningstar & Co, United States, Copenhagen
1 bbl, 310 lbs, A De Ronde & Co, Maryland, Antwerp
SUMAC—140 bgs, 22,377 lbs, Leber & Sons, Irene, Palermo
EXTRACT—50 bbls, 25,547 lbs, Geigy Anil & Ext Co, Finland, Antwerp
TALC—164 cs, 40,477 lbs, Kramer & Foster, Gallia, Marseilles
14 sks, 3,086 lbs, C B Osborn & Co, Gallia, Marseilles
12 cs, 12 cwt, J W Hampton, Jr & Co, Victorian, Liverpool
200 bgs, 44,000 lbs, Stanley Doggett, Moltke, Milan
TAPIOCA FLOUR—384 bls, 812.27 pcls, Abe Stein & Co, Nlew Amsterdam, Rotterdam
870 bgs, 15 cwt, 0-5, Chas Morningstar & Co, Victorian, Liverpool
1,338 bgs, 271,972 lbs, Stein, Hirsh & Co, Victorian, Liverpool
GUAYAC—3 cs, 426 lbs, Schuler & Co, Pr Wm IV, Port au Prince
MINERAL—120 bgs, 14,000 lbs, Strohmeyer & Arpe Co, Batavia, Hamburg
VEGETABLE—96 bgs, J W Hampton, Jr & Co, Victorian, Liverpool
WHITE LEAD—5 cks, 2,327 lbs, H. Kohnstamm & Co, Chemnitz, Bremen
WITHERITE—400 bgs, 80,408 lbs, Gabriel & Schall, Nlew Amsterdam, Rotterdam
ZINC OXIDE—1 cs, 224 lbs, Parke, Davis & Co, St Louis, Southampton
50 cks, 22,046 lbs, J A & W Bird Co, Nlew Amsterdam, Rotterdam

Warehoused in Bond.

ALBUMEN, EGG—35 cs, 7,617 lbs, A Klipstein & Co, Hudson, Havre
ALCOHOL—20 drms, 2,873 gals, F O Boyd & Co, Tronto, Hamburg
ALIZARINE ASST—54 bbls, 2,955 gals, Arnold, Hoffman & Co, Carmania, Liverpool
ANIL COLOR—57 cks, 10 kgs, Cont Color & Chem Co, Maryland, Antwerp
DYE—1,351 kgs, Cassello Color Co, Potsdam, Rotterdam
477 cks, Cassello Color Co, Nlew Amsterdam, Rotterdam
BRONZE POWD—9 cs, 2,250 lbs, Bronze Powd Wks, Chemnitz, Bremen
CAMPHOR—25 cs, 2,500 lbs, Stallman & Fulton Co, Minnehaha, London
CHEM PREP—1 cs, 63 lbs, Fritzsche Bros, Brandenburg, Bremen
200 cs, The Roessler & H Chem Co, Caledonia, Glasgow
CHILLIES—305 bgs, 33,550 lbs, John Clark & Co, Republic, Naples
COAL TAR PREP—20 drms, 28,166 lbs, The Roessler & H Chem Co, Tronto, Hamburg
COLORS—2 cks, C Bischoff & Co, Brandenburg, Bremen
4 cks, H Kohnstamm & Co, Chemnitz, Bremen
CORKS—102 bls, 13,278 lbs, W J Farrell & Co, Maryland, Antwerp
3 bls, 459 lbs, F Gutmann & Co, Neustria, Barcelona
DEXTRINE—100 bgs, 21,826 lbs, C Morningstar & Co, United States, Stettin
300 bgs, 65,146 lbs, C Morningstar & Co, United States, Stettin
GLUE—63 cks, 1,202 lbs, Miller & Kasschau, Toronto, Hull
GUM CHICLE—108 bls, 19,877 lbs, Thebaud Bros, Matanzas, Tuxpano
34 bgs, 6,402 lbs, H Marquardt & Co, Matanzas, Tuxpano
216 bls, 26,985 lbs, F Probst & Co, Tjonia, Campeche
OIL, CASTOR—25 cs, 250 gals, McKesson & Robbins, Neustria, Marseilles
CODLIVER—40 bbls, 1,200 gals, Stallman & Fulton Co, Minnehaha, London
OPIUM—12 cs, 1,850 lbs, R W Bush, St Louis, Southampton
POTASSIUM CYANIDE—200 cs, The Roessler & H Chem Co, Caledonia, Glasgow
SPONGES—88 bls, A Isaac & Co, Seguranca, Nassau
23 bls, Lasker & Bernstein, Havana, Havana

Withdrawals from Bond.

ACID, BORACIC—3 cks, 1,655 lbs, B F Drakenfels & Co, Algeria, Naples

CREAM OF TARTAR. TARTARIC ACID.

GUARANTEED 99—100 Per Cent. Pure.

TARTAR CHEMICAL COMPANY, 92 William Street, NEW YORK.

50¼ cs, 1,250 lbs, W J Bush & Co, Republic, Messina
30½ cs, 750 lbs, A G Caillet, Republic, Naples
48 cs, 2,476 lbs, Fritzsche Bros, Moltke, Messina
60 cs, 1,500 lbs, A G Caillet, Moltke, Messina
25¼ cs, 625 lbs, Crandall & Godley Co, Moltke, Messina
2 cs, Aug Giese & Co, Amerika, Hamburg
31 cs, 745 lbs, Farrington & Whitney, Moltke, Genoa
OLIVE—12 cks, 460 gls, Giuespe Srozzari, Calabria, Palermo
10 bbls, 497 gls, Leerburger Bros, Gerty, Bari
OLIVE OIL FOOTS—100 bbls, 5,035 gls, Holbrook Mfg Co, Francesco, Bari
200 bbls, 10,000 gls, F B Leonari & Co, Francesco, Trieste
100 bbls, 37,976 gls, Robt Crook & Co, Francesco, Trieste
150 bbls, 68,197 lbs, Oil Seed Co, Francesco, Trieste
300 bbls, 16,088 gls, Swan & Finch Co, Gerty, Patras
100 bbls, 5,005 gls, Stallman & Fulton Co, Francesco, Trieste
ORANGE—26 cs, 622 lbs, Farrington & Whitney, Moltke, Genoa
PALM—115 cks, Colby & Co, Victorian, Liverpool
39 cks, Colby & Co, Oceanic, Liverpool
PEANUT—10 bbls, 5,051 lbs, D Auerbock & Sons, Neustria, Marseilles
10 bbls, D Auerbock & Sons, Gallia, Marseilles
RAPE SEED—250 bbls, 12,818 gls, Vacuum Oil Co, Toronto, Hull
10 cks, 500 gls, Stolzenberg Co, Nlew Amsterdam, Rotterdam
6 bbls, 360 gls, Kuhne, Libby & Co, Finland, Antwerp
50 bbls, 2,548 gls, Hammill & Gillespie, Toronto, Hull
SESAME—10 bbls, 3,971 lbs, McKesson & Robbins, Neustria, Marseilles
POTATO FLOUR—100 bgs, 21,826 lbs, Chas Morningstar & Co, United States, Copenhagen
200 bgs, 43,651 lbs, Stein, Hirsh & Co, United States, Copenhagen
50 bgs, 11,023 lbs, W Grandeman & Sons, Nlew Amsterdam, Rotterdam
100 bgs, 22,046 lbs, S Oppenheimer & Co, Toronto, Hamburg
PUMICE STONE—60 cs, 8.86 tons, R J Waddell & Co, Chemnitz, Bremen
QUEBRACHO EXTRACT—65 bgs, 6,614 lbs, Innis, Speiden & Co, Indiana, Buenos Aires
QUINIDINE—2 cs, 88 lbs, The Roessler & H Chem Co, Kr Pr Wm, Bremen
QUININE—74 cs, 5,297 lbs, G W Sheldon & Co, Chemnitz, Bremen
RENNET—2 cs, 660 lbs, Amermann & Patterson, United States, Copenhagen
RED OXIDE—82 cks, 29 tons-2-1-14, J Lee Smith & Co, Toronto, Hull
RHUBARB—3 cs, 300 lbs, Lehn & Fink, Mesaba, London
ROOTS, DANDELION—20 bales, 2,066 lbs, Stallman & Fulton Co, Minnehaha, Lond
IPECAC—5 bgs, 405 lbs, Cann & Emdon, Panama, Panama
1 bx, 26 lbs, Piza, Nephews & Co, Panama, Panama
MED—3 bls, Peek & Velsor, Francesca, Trieste
28 bls, 5,365 lbs, Parke, Davis & Co, Gerty, Trieste
9 bls, 1,200 lbs, J L Hopkins & Co, Parmania, Trieste
6 bls, 1,200 lbs, J L Hopkins & Co, Parmania, Trieste
60 bls, 6,600 lbs, J L Hopkins & Co, Horncap, Hamburg
16 bls, 2,700 lbs, J L Hopkins & Co, Horncap, Hamburg
SARSAPARILLA—3 bls, 1,243 lbs, P E Anderson & Co, Minnehaha, London
SALTPETER—533 bgs, Abe Stein & Co, Swanley, Calcutta
SEED, ANNATTO—27 bgs, 5,483 lbs, A S Lascelles & Co, Pr Eitel Fredk, Kingston
TARTAR, CRUDE—144 bgs, 141 cks, 195,696 lbs, Tartar Chem Co, Gallia, Marseilles
205 bgs, 22 cks, 380 bgs, Chas Pfizer & Co, Gallia, Marseilles
14 cks, 17,203 lbs, Tartar Chem Co, Neustria, Marseilles
TURPENTINE—104 bbls, Nat Anil & Chem Co, Toronto, Hull
5 bls, Geo Lueders & Co, Toronto, Hull
RUSSIAN—104 bbls, 326 cwt, 2-1, L T Jenning & Co, Toronto, Hull
ULTRAMARINE—10 cs, 2,238 lbs, H Kohnstamm & Co, Nlew Amsterdam, Rotterdam
35 cks, H A Metz & Co, Nlew Amsterdam, Rotterdam
3 bbls, 1,762 lbs, E C Riebe & Co, Finland, Antwerp
VARNISH—5 cks, 2,391 lbs, W W Thomas & Co, Maryland, Antwerp
VENETIAN RED—300 bbls, 48 tons, 13-0-24, J Lee Smith & Co, Cedric, Liverpool
18 bbls, 5-2-0-24, Hemingway & Co, Minnehaha, London
WASH BLUE—10 bdls, 1,128 lbs, Acker, Merreil & Condit, St Louis, Southampton
WAX, BEES—14 bgs, 3,500 lbs, Hensel, Bruckmann & Lorbacher, Cienfuegos, Manzanilla
2 bbls, 1 bg, 670 lbs, J E Herrera, Cherokee, Azua
7 bbls, 1,895 lbs, W & A Leaman, Cherokee, Turk Island
7 sks, 1,800 lbs, V Cairo & Co, Curityba, Nueritas
2 cs, A Behrens & Co, Pr W IV, Aux Cayes
2 bbls, F de Perry, Venetia, Jeremie
CERESINE—64 bgs, 7,078 lbs, Chas Morningstar & Co, Batavia, Hamburg
20 bgs, 2,000 lbs, Strohmeyer & Arpe Co, Batavia, Hamburg
CRUDE—6 bbls, 917 lbs, Schuler & Co, Pr Wm IV, Port au Prince
2 bbls, 5,500 lbs, Frame & Co, Cherokee, Azua
2 bgs, 391 lbs, Merck & Co, Cherokee, Sanchez
ALBUMIN EGG—30 cs, 6,524 lbs, A Klipstein & Co, Rapallo, Hamburg
15 cs, 3,307 lbs, A Klipstein & Co, Pennsylvania, Hamburg
ALCOHOL—4 drms, 1,182 gals, F O Boyd & Co, Rapallo, Hamburg
1 drum, 120 gals, F O Boyd & Co, Rapallo, Hamburg
2 drums, 241 gals, F O Boyd & Co, Pennsylvania, Hamburg
ANILINE COLOR—5 cks, Cont Color & Chem Co, Vaderland, Antwerp
20 kgs, Cont Color & Chem Co, Zeeland, Antwerp
2 cks, Cont Color & Chem Co, Noordam, Rotterdam
12 cks, 5 cs, Cont Color & Chem Co, Finland, Antwerp
15 cks, Cont Color & Chem Co, Vaderland, Antwerp
DYE—5 cks, Cassello Color Co, Potsdam, Rotterdam
237 cks, Cassello Color Co, Potsdam, Rotterdam
19 kgs, Cassello Color Co, Potsdam, Rotterdam
79 kgs, Cassello Color Co, Potsdam Rotterdam
BRISTLES—9 cs, 990 lbs, Emil Rump, Ghazee, Shanghai
5 cs, 669 lbs, Emil Rump, Ghazee, Hong Kong
5 cks, 666 lbs, O C Teeple, Lucania, Liverpool
1 ck, 543 lbs, Huesmann & Co, Main, Bremen
4 cs, 533 lbs, Emil Rump, Shunosa, Canton
2 cs, 440 lbs, Philadelphia, Southampton
12 cs, 1,340 lbs, New York, Southampton
8 cs, 975 lbs, Mesaba, London
9 cks, 4,556 lbs, Blucher, Hamburg
1 cs, Emil Rump, Minnetonka, London
4 cs, 440 lbs, Indiana, Shanghai
8 cs, 880 lbs, Louther Castle, Shanghai
10 cs, 1,212 lbs, Emil Rump, Vandalia, Shanghai
13 cs, 1,430 lbs, Emil Rump, Indrasamha, Shanghai

INNIS, SPEIDEN & CO.

181 Front Street, New York

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Colors Chemicals and Dyestuffs

HEADQUARTERS FOR

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all Formulas
STOCK ALWAYS READY FOR DELIVERY
JULIUS MARCUS, WRITE FOR PARTICULARS COTTON EXCHANGE, N.Y.

20 cs, 2,200 lbs, Emil Rump, Sikh, Shanghai
6 cs, 800 lbs, Emil Rump, Satsuma, Shanghai
BRONZE PWD—1 cs, 500 lbs, G Benda, Cassel, Bremen
CHEM, PREP—9 cks, The Roessler & H Chem Co, Batavia, Hamburg
1 cs, Kr Pr Wm, Bremen
1 cs, The Roessler & H Chem Co, Batavia, Hamburg
SALT—12 cs, Victorian, Liverpool
CHILLIES—300 bales, 33,600 lbs, Suffern & Co, Lombardia, Naples
375 bales, 34,875 lbs, Konigin Luise, Genoa
42 bgs, 4,674 lbs, Ida, Trieste
100 bales, 11,200 lbs, K Luise, Genoa
CLAY, CHINA—100 cks, 50 tons, Hammil & Gillespie, Aeolus, Plymouth
200 cks, 100 tons, Hammil & Gillespie, Aeolus, Plymouth
90 cks, 45 tons, Hammil & Gillespie, Lorie, Plymouth
COCOA BUTTER—34 bgs, 6,512 lbs, Habrecht, Braun & Co, Noordam, Rotterdam
30 bgs, 4,091 lbs, Habrecht, Braun & Co, Statendam, Rotterdam
COLOR—3 cs, A Birienberg, Trave, Bremen
4 cks, Fred der Gr, Bremen
2 cks, Cassel, Bremen
5 cks, C Bischoff & Co, Kroonland, Antwerp
2 cks, Patricia, Hamburg
2 cs, Philadelphia, Southampton
COAL TAR—10 cks, Statendam, Rotterdam
6 cks, Ryndam, Rotterdam
5 cks, Yorck, Bremen
CORK—3 bls, 288 lbs, A Daussa & Co, Ulriken, San Felin
1 bl, 112 lbs, L Mundet & Sons, K Aug Vict, Hamburg
1 bl, 23 lbs, L Mundet & Sons, Pretoria, Hamburg
2 bls, 162 lbs, J Torres, Cedric, Liverpool
1 bl, 93 lbs, L Mundet & Sons, Monviso, Marseilles
87 bls, 1,130 lbs, Maryland, Antwerp
1 bl, 90 lbs, F Butmann & Co, Caronia, Liverpool
2 bls, 172 lbs, J Torres, Oceanic, Liverpool
1 bl, 92 lbs, J Torres, Georgic, Liverpool
4 bls, 579 lbs, Finland, Antwerp
3 bls, 330 lbs, J Torres, St Paul, South'ton
3 bls, 267 lbs, L Mundet & Sons, Minnehaha, Southampton
2 bls, 195 lbs, J Torres, Carmania, L'pool
1 bl, 118 lbs, A Daussa & Co, Athalie, San Felin
1 bl, 124 lbs, Antonio Lopez, Barcelona
2 bls, 296 lbs, Idaho, Hull
GELATINE—2 cs, 224 lbs, P E Zuhlke, Martello, Hull
1 cs, 111½ lbs, P C Zuhlke, Colorado, Hull
4 cs, 448 lbs, P C Zuhlke, Westerland, Antwerp
1 cs, 111½ lbs, P C Zuhlke, Colorado, Hull
GLUE—16 bbls, 3,840 lbs, Milligan & Higgins Glue Co, Batavia, Hamburg
1 ck, 331 lbs, Miller & Kasschau, Toronto, Hull
30 cks, 12,267 lbs, Chas Townsend & Bro, Idaho, Hull
53 bgs, 10,908 lbs, Chas Townsend & Bro, Cetta di Messina, Genoa
GUM CHICLE—84 bls, 9,939 lbs, E Nelson, Tibbald & Co, Matanzas, Tuxpano
121 bls, 20,668 lbs, Thebaud Bros, Esperanza, Saguna
LICORICE PASTE—100 cs, 25,128 lbs, Emil Utard, Georgistan, Barcelona
MENTHOL—5 cs, Minnehana, London
OIL, CODLIVER—20 bbls, 600 gals, Lauman & Kemp, Silvia, St Johns
15 bbls, 460 gals, Schieffelin & Co, Oscar II, Christiania
OLIVE—5 cks, 235 gals, Ungerer & Co, Sazio, Messina
OPIUM—1 cs, 55 lbs, McKesson & Robbins, Armenian, Liverpool
3 cs, 357 lbs, McKesson & Robbins, New York, Southampton
1 cs, 169 lbs, McKesson & Robbins, Columbia, Glasgow
POTASSIUM CYANIDE—280 cs, The Roessler & H Chem Co, Pennsylvania, Hamburg
100 cs, The Roessler & H Chem Co, Batavia, Hamburg
POTATO FLOUR—100 bgs, 22,047 lbs, Stein, Hirsh & Co, Noordam, Rotterdam
100 bgs, 21,700 lbs, Chas Morningstar, Helig Olav, Stettin
QUEBRACHO EXTRACT—100 bgs, 10,703 lbs, A Klipstein & Co, Dundonian, B Aires
SPONGES—7 bls, Lasker & Bernstein, Seneca, Nassau
12 bls, Lasker & Bernstein, Segurancia, Nassau
8 bls, Lasker & Bernstein, Vigilancia, Nassau

Boston Imports.

BRISTLES—2 cs, Philadelphian, London
CHALK—800 tons, Philadelphian, London
COAL TAR PRODS—2 pkgs, W W Proctor & Co, Philadelphian, London
CUTCH—750 bxs, Philadelphian, London
DRUGS—4 pkgs, B D Webber, Philadelphian, London
GELATINE—5 cs, F Leyland & Co, Philadelphian, London
GUM—1 bbl, J F Masters, Boston, Yarmouth, N S
INDIGO—12 cks, Philadelphian, London
OLIVE OIL—100 bbls, A Osero, Regina, Elena, Catania
50 cks, Brown Bros & Co, Regina Elena, Palermo
SULPHUR—190 cks, Emilo & Co, Regina Elena, Palermo
PITCH—500 bbls, Philadelphian, London
QUASSIA WOOD—9 tons, United Fruit Co, Admiral Dewey, Jamaica
QUEBRACHO EXT—46,271 bgs, Baring Bros & Co, Auchenarden, Rosario
SOAP—56 cs, H Hanson & Co, Philadelphian, London
1 cs, B D Webber, Philadelphian, London
SUMAC—2,300 bgs, Regina Elena, Palermo
TURMERIC—60 bgs, Philadelphian, London
WAX—15 bgs, Philadelphian, London

Philadelphia Imports.

ACID, CARBOLIC—30 cks, Manchester Exchange, Manchester
OXALIC—12 cks, J L & D S Riker, Friesland, Liverpool
25 cks, Friesland, Liverpool
PICRIC—22 kgs, Manchester Exchange, Manchester
15 cks, Read Holliday & Co, Manchester Exchange, Manchester
ALUM, CHROME—12 cks, Roessler & Haessler Chem Co, Marquette, Antwerp
ANILINE COLOR—6 bbls, L B Fortner, Marquette, Antwerp
SALT—120 cks, Geisenheimer & Co, Canadia, Rotterdam
11 cks, Read Holliday & Co, Manchester Exchange, Manchester
183 bbls, A Klipstein & Co, Marquette, Ant
ANTIMONIN—6 bbls, Cont Color & Chem Co, Marquette, Antwerp
BENZOLE—30 dms, Manchester Exchange, Manchester
50 bbls, Marquette, Antwerp
BISMUTH—10 cs, Powers, Weightman & Rosen Co, Montana, London
BLEACH—85 cks, Arnold, Hoffman & Co, Manchester Exchange, Manchester
43 cks, J L & D S Riker, Friesland, Lpool
62 bbls, A Klipstein & Co, Marquette, Ant
CHALK—25 cks, Manchester Exchange, Manchester
500 tons, Montana, London
CHEMICALS—33 cks, Geisenheimer & Co, Canadia, Rotterdam
15 cks, J Meyer & Son, Canadia, Rotterdam
CHINA CLAY—1,031 sks, Manchester Exchange, Manchester
480 sks, Friesland, Liverpool
275 sks, E Thiele, Marquette, Antwerp
CLAY—335 tons, Hammill & Gillespie, Montana, London
293 tons, Geo Knowles & Son, Montana, London
300 tons, Geo Knowles & Son, Friesland, Liverpool
50 tons, Golding Sons Co, Friesland, Lpool
CORKWOOD—71 bls, Canadia, Rotterdam
CREOSOTE SALTS—670 bgs, Montana, London
CRESYLIC—50 cks, Manchester Exchange, Manchester
DYESTUFF—19 bbls, Andreykovicz & Dunk, Marquette, Antwerp
GLYCERINE—52 dms, Friesland, Liverpool
CRUDE—50 dms, Marquette, Antwerp
GUM—150 cs, Montana, London
ARABIC—10 cs, Montana, London
SANDRAC—10 cks, Montana, London
GYPSUM—150 bgs, Manchester Exchange, Manchester
LITHOPONE—67 bbls, Gabriel & Schall, Marquette, Antwerp
MAGNESIA, CALCINED—20 bls, Friesland, Liverpool
MANGANESE, OXIDE—160 bgs, A Klipstein & Co, Marquette, Antwerp
RECOVERED—10 cks, Jas Lee & Co, Friesland, Liverpool
OIL, EXPRESSED—14 cs, Smith, Kline & French, Montana, London
PALM—23 cks, Friesland, Liverpool
PARAFFINE—25 bbls, Marquette, Liverpool
RAPESEED—25 bbls, Friesland, Liverpool
TOLINIDINE—40 dms, Read Holliday & Co, Manchester Exchange, Manchester
PAINT—77 cks Sutherland & Warde, Manchester Exchange, Manchester
PITCH—77 bbls, Friesland, Liverpool
POTASH—441 bbls, 140 dms, A Klipstein & Co, Marquette, Antwerp
SAL AMMONIAC—16 cks, Roessler & Haessler Chem Co, Marquette, Antwerp
SHELLAC—150 chsts, Volga, Calcutta
SOAP LYES—115 dms, Montana, London
ZINC OXIDE—15 cks, Powers, Weightman & Rosen Co, Montana, London

Baltimore Imports.

AMMONIA, MUR—199 cks, Templemore, Lpool
SULPH—500 bgs, Orthia, Glasgow
FERTILIZER—3,321 bgs, Templemore, Lpool
FULLER'S EARTH—700 bgs, Maryland, London
MANURE, AMMONIATED—300 bgs, Templemore, Liverpool
OIL, PALM—115 cks, Templemore, Liverpool
PEPPER—150 bgs, Maryland, London

New Orleans Imports.

CHINA CLAY—108 cks, Cestrian, Liverpool
GLASS, WINDOW—1,250 bxs, Cestrian, Liverpool
PHOSPHATE ROCK—1,202 tons, Camilla May Page, Aruba, D W I
VENETIAN RED—240 bbls, Cestrian, Liverpool

Newport News Imports.

ARSENIC—84 cks, Shenandoah, Liverpool
CHINA CLAY—369 cks, Shenandoah, Liverpool
FULLER'S EARTH—1,400 bgs, Mariana, London
900 bgs, Albiana, London
OIL, COCOANUT—27 pipes, Mariana, London
17 cks, Albiana, London
CREOSOTE—620 cks, Albiana, London

Norfolk Imports.

AMMONIA SULPH—490 bgs, 50 tons, Hestia, Glasgow.

San Francisco Imports.

ALUM, CHROME—55 cks, Glenmark, Rotterdam
BARYTES—47 cks, Glenmark, Rotterdam
CARBOLINEUM—15 bbls, H Hackfield & Co, Pythomene, Antwerp
COPRA—600 bgs, Pacific Oil & Lead Co, Ventura, Pago Pago
4,468 bgs, Pacific Oil & Lead Co, Sierra, Melbourne
GUM KAURI—10 sks, 8 cs, Ventura, Auckland
OIL COCOANUT—900 bbls, Pythomene, Sydney
SHEEP DIP—100 cs, Abessinia, London
SOAP—1,500 cs, Glenmark, Rotterdam
SUMAC—500 bgs, G W McNear, Pythomene, Antwerp

EXPORTS FROM NEW YORK.

Week ending April 26.

ACID—10 dms, $317, Silvia, St Johns
CARBOLIC—5 cs, $95, Morro Castle, Havana
MUR—219 cbys, $628, Matanzas, Havana
49 cbys, $140, Windber, Pto Rico
40 cbys, $116, Santiago, Vera Cruz
SULPH—110 cbys, $375, Santiago, Tampico
19 cbys, $52, Manoa, St Lucia
10 cbys, $27, Panama, Cristobal
4 dms, $69, Manzanillo, Cuba
6 cbys, $20, Seguranca, Cuba
ALCOHOL, WOOD—500 bbls, $6,400, Mohawk, Antwerp
400 bbls, 22 dms, $7,850, Burnby, Havre
67 dms, $6,900, Minnehaha, London
2 bbls, $55, Carolina, Pto Rico
AMMONIA—10 dms, $262, Monterey, Havana
3 cyls, $72, Manzanillo, Cuba
6 cyls, $200, Prinz Eitel Friedrich, Colon
ANISEED—4 bgs, $52, Carolina, Pto Rico
ASPHALTUM—10 bbls, $570, La Savoie, Havre
BALSAM—5 cs, $983, Batavia, Hamburg
BONE BLACK—44 bbls, $586, Minnehaha, London
CALCIUM CARBIDE—150 dms, 100 pkgs, $1,533, Largo Law, New Zealand
3,005 dms, $10,733, Mercedes de Larrinaza, La Plata
200 dms, $1,418, Kasama, Fremantle
200 dms, $1,418, Kasama, Melbourne
CANDLES—115 pkgs, 18 cs, $1,775, Atrato, Colon
6 cs, $63, Horatio, Iquique
600 cs, $1,104, Brooklyn, Pto Rico
125 pkgs, 2,000 cs, $4,412, Seguranca, Cuba
500 cs, $1,250, Kasama, Fremantle
300 cs, $750, Kasama, Adelaide
CARBON BLACK—5 bbls, Furnessia, Glasgow
50 bbls, $375, Lord Erne, Rotterdam
50 bbls, $625, Batavia, Hamburg
5 bbls, $250, Caledonia, Glasgow
100 cs, $800, Russ, Rotterdam
CASSIA—5 cs, $26, Cherokee, Hayti
5 bls, $52, Maracaibo, Maracaibo
CHINA CLAY—840 bgs, $850, Vaderland, Antwerp
500 bgs, $500, Titian, Manchester
323 bgs, $325, Breslau, Bremen
440 bgs, $450, Armenian, Liverpool
188 bgs, $170, Lord Erne, Rotterdam
325 bgs, $325, Burnby, Havre
321 bgs, $321, Minnehaha, London
140 bgs, $150, Finland, Antwerp
300 bgs, $315, Gerty, Venice
CINNAMON—6 bls, $105, Atrato, Jamaica
10 bls, $181, Monterey, Havana
2 bls, $41, Monterey, Progreso
2 bls, $39, Seguranca, Cuba
40 bls, $740, Santiago, Tampico
4 bls, $26, Maracaibo, Maracaibo
COAL TAR—6 bbls, $32, Largo Law, Melbourne
COLOR—155 cs, 313 pkgs, $1,320, Afghan Prince, East London
23 cs, $84, Largo Law, Auckland
40 cs, $926, Batavia, Hamburg
125 cs, 45 kgs, $1,016, Hawkes Bay, Sydney
112 cs, $408, Hawkes Bay, Brisbane
COPPER SULPH—360 bbls, 22,500 lbs, $1,500, Calabria, Marseilles
360 bbls, $14,664, Prinzess Irene, Genoa
15 cs, 495 lbs, $55, Maracaibo, Coro
CORKS—6 bls, $110, Brooklyn, Pto Rico
CUMMIN SEED—4 bgs, $46, Carolina, Pto Rico
9 bgs, $83, Maracaibo, Maracaibo
CYANIDE—10 cs, $90, Silvia, Halifax
30 cs, $588, Santiago, Tampico
160 cs, $3,531, Panama, Cristobal
300 cs, Monterey, Havana
DYEWOOD EXT—20 kgs, $313, Avon, Melbourne
36 bxs, $360, Prinzess Irene, Genoa
60 bxs, 1 bbl, $298, Potsdam, Rotterdam
200 bxs, $529, Batavia, Hamburg
30 bxs, $91, Finland, Antwerp
FERTILIZER—1,610 bgs, $7,143, Windber, Pto Rico
600 bgs, $1,810, Morro Castle, Havana
200 bgs, $613, Paloma, Cuba
140 bgs, $506, Carolina, Pto Rico
FUSTIC EXT—25 bbls, $955, Finland, Antwerp
GLUCOSE—2,400 bbls, $30,000, Titian, Manchester
120 bbls, $1,500, Furnessia, Glasgow
50 bbls, $790, Afghan Prince, Cape Town
2,610 bbls, $7,025, Afghan Prince, Delagoa Bay
20 bbls, $328, Afghan Prince, East London
30 bbls, $375, Lord Erne, Rotterdam
100 bbls, $1,300, Largo Law, Dunedin
30 bbls, $325, Largo Law, Sydney
30 bbls, $325, Largo Law, Auckland
60 bbls, $750, Largo Law, Lyttleton
3,120 bbls, $39,000, Minnehaha, London
240 bbls, $3,000, Avon, Melbourne
60 bbls, $780, Morro Castle, Havana
60 bbls, $1,096, Kasama, Melbourne
10 bbls, $170, Kasama, Fremantle
GLUE—3 cks, $52, Silvia, Halifax
10 cks, $800, Breslau, Bremen
2 bbls, $74, Brooklyn, Pto Rico
2 bbls, $350, La Savoie, Havre
2 bbls, $72, Monterey, Havana
2 bbls, $71, Shira, Callao
11 bbls, $286, Santiago, Tampico
120 bbls, $3,429, Caledonia, Glasgow
GLYCERINE—2 dms, $102, Mohawk, Antwerp
GRAPE SUGAR—3,500 bgs, $7,040, Titian, Manchester
200 bgs, 22,400 lbs, $448, Largo Law, Sydney
3,600 bgs, 403,200 lbs, $8,064, Minnehaha, London
200 bgs, 22,400 lbs, 448, Avon, Sydney
GRAPHITE—15 bbls, $472, La Savoie, Havre
4 cs, $28, Mercedes de Larrinaga, Montevideo
5 cs, $172, Batavia, Hamburg
GREASE, SOAP—100 tcs, $2,450, Livonia, Rotterdam
100 tcs, $2,375, Titian, Manchester
16 tcs, $1,069, Afghan Prince, East London
200 tcs, $4,400, Bristol City, Bristol
92 tcs, $2,260, Cedric, Liverpool
100 tcs, $2,450, Livonia, Rotterdam
10 tcs, $210, Finland, Antwerp
LUB—28 bbls, $455, Matanzas, Havana
100 cs, $135, Vandalia, Kobe
74 bbls, 37 cs, $1,842, Silvia, Halifax
38 cs, $821, Caledonia, Glasgow
1,000 bbls, $19,985, Calabria, Marseilles
5 bbls, $50, Furnessia, Glasgow
49 bbls, 95 cs, $3,908, Armenian, Liverpool
26 bbls, $148, Brooklyn, Porto Rico
20 bbls, $808, Afghan Prince, Delagoa Bay
15 cs, $35, Afghan Prince, Cape Town
45 bbls, $465, Lord Erne, Rotterdam
21 bbls, $313, La Savoie, Havre
10 bbls, $187, Paloma, Cuba
20 bbls, Monterey, Havana
20 kgs, $45, Largo Law, Auckland
30 bbls, 50 kgs, $277, Largo Law, Melbourne
5 bbls, 5 cs, $153, Largo Law, Lyttleton
60 bbls, 230 pkgs, $392, Largo Law, Wellington
30 bbls, 50 cs, 50 kgs, $600 Largo Law, Sydney
18 kgs, $33, Largo Law, Dunedin
110 bbls, $1,100, Mercedes de Larrinaga, Buenos Aires
600 kgs, $1,050, Shira, Talcahuano
50 bbls, 5 cs, Shira, Valparaiso
11 cs, $110, Victorian, Liverpool
6 bbls, $60, Burnby, Havre
3 bbls, $79, Santiago, Tampico
5 bbls, $170, Tudor Prince, Hong Kong
5 bbls, $50, Caledonia, Glasgow
645 bbls, $12,885, Minnehaha, London
9 bbls, $146, Campania, Liverpool
102 bbls, $2,575, Prinzess Irene, Genoa
135 bbls, $1,512, Livonia, Riga
45 bbls, $611, Livonia, Moscow
85 bbls, $1,341, Finland, Antwerp
20 bbls, $499, Morro Castle, Havana
46 bbls, $537, Kasama, Brisbane
20 bbls, 120 kgs, 257 cs, $1,630, Kasama, Fremantle
15 bbls, $315, Cherokee, Hayti
45 bbls, $1,260, Gerty, Venice
GUM, ASAFOETIDA—17 cs, $718, Minnehaha, London
KAURI—20 cs, $500, Brandenburg, Bremen
IPECAC—13 pkgs, $900, Minnehaha, London
LAMPBLACK—100 cs, $750, Vandalia, Kobe
LEAD—41 pigs, 4,010 lbs, $271, Windber, Porto Rico
5,702 pigs, 559,069 lbs, $23,268, Titian, Manchester
419 pigs, 44,850 lbs, $1,820, Potsdam, Amsterdam
622 pigs, 67,235 lbs, $2,730, Potsdam, R'dam
3,338 pigs, 356,114 lbs, $14,469, Cedric L'p'l
16,891 pigs, $72,267, Batavia, Hamburg
LICORICE ROOT—23 cs, $239, Potsdam, R'dam
LIME, ACETATE—5,788 bgs, $23,150, Mohawk, Antwerp
1,884 bgs, 270,083 lbs, $7,300, Vaderland, Antwerp
1,048 bgs, 150,499 lbs, $4,300, Burnby, Havre
2,840 bgs, 415,063 lbs, $11,500, Batavia, Hamburg
2,192 bgs, 313,434 lbs, $8,700, Finland, Antw
1,669 bgs, 233,279 lbs, $6,400, Livonia, R'd'm
LINSEED—750 bgs, 33,193 lbs, $15,680, Caledonia, Glasgow
8,305 bgs, 2,743,517 lbs, $36,068, Finland, Antwerp
CAKE—6,425 bgs, $26,912, Mohawk, Antwerp
6,464 bgs, 2,126,603 lbs, $27,452, Vaderland, Antwerp
1,413 bgs, $5,946, Armenian, Liverpool
7,463 bgs, 2,444,465 lbs, $29,303, Potsdam, Rotterdam
2,247 bgs, 511,455 lbs, Lord Erne, Rot'dam
144 bgs, 45,452 lbs, $594, Cedric, Liverpool
1,559 bgs, 242,980 lbs, $40,000, Caledonia, Marseilles
MEAL—2,121 bgs, 233,310 lbs, $3,150, Potsdam, Rotterdam
LITHARGE—200 kgs, $9,740, Afghan Prince, Delagoa Bay
LOGWOOD EXT—25 pkgs, $148, Shira, Callao
MAGNESIA CARB—18 bgs, $170, Silvia, H'fax
OCHER—45 bbls, $135, Minnehaha, London
OIL, ALMOND—3 cs, $50, Monterey, Havana
CAKE CORN—1,100 bgs, 122,100 lbs, $2,240, Lord Erne, Rotterdam
2,727 bgs, 599,940 lbs, $7,000, Calabria, Marseilles
CASTOR—5 bbls, Monterey, Havana
COD—58 cks, Francesca, Trieste
20 bbls, $270, Avon, Melbourne
50 cks, $650, Kasama, Melbourne
CODLIVER—16 cks, $136, Hawkes Bay, Melbourne
6 bbls, $124, Hawkes Bay, Sydney
COTTONSEED—5 bbls, 115 cs, $618, Atrato, Colon
4 bbls, 30 cs, $274, Atrato, Jamaica
6 bbls, 86 cs, $740, Lavinia M Snow, Hayti
50 bbls, $1,060, Prinzess Irene, Malta
25 bbls, $530, Campania, Liverpool
23 bbls, $507, Armenian, Liverpool
22 bbls, 10 cs, $568, Manoa, Dominica
1 bbl, 10 cs, $85, Manoa, Cayenne
24 bbls, 30 cs, $770, Manoa, Jamaica
125 bbls, 20 cs, $3,107, Manoa, Guadeloupe
14 bbls, $403, Manoa, Demerara
100 bbls, $2,623, Manoa, Martinique
10 cs, $66, Brooklyn, Porto Rico
35 cs, $207, Afghan Prince, Cape Town
90 cs, $487, Afghan Prince, Algoa Bay
60 bbls, 125 cs, $2,215, Afghan Prince, East London
180 cs, $720, Afghan Prince, Delagoa Bay
100 bbls, 3,275, Potsdam, Rotterdam
30 bbls, $805, Lombardia, Port Said
57 bbls, $1,725, Lombardia, Malta
30 cs, $159, Panama, Cristobal
50 bbls, $1,060, Kronprinz Wilhelm, Bremen
10 cs, $63, Alleghany, Hayti
15 bbls, $458, Largo Law, Dunedin
258 bbls, 2,000 cs, $17,032, Mercedes de Larrinaga, Montevideo
70 bbls, $1,805, Mercedes de Larrinaga, Buenos Ayres

C. BISCHOFF & CO.
451-453 Washington St.
NEW YORK
Spiroform
Histosan
Eunatrol
Hirudin
Triferrol
Hydragogin
Urosine
Irisol
Oxalic Acid
German Carbolic Acid
Heliotropin

50 cs, $397, Shira, Taltal
30 cs, $270, Shira, Iquique
4 bbls, $85, Shira, Arica
20 cs, $122, Shira, Punta Arenas
200 bbls, $6,640, Burnby, Havre
1,400 bbls, 400 cs, $28,625, Siegmund, Santos
80 bbls, $1,991, Siegmund, Rio Janeiro
10 bbls, 75 cs, $850, Manzanillo, Cuba
150 bbls, $5,955, Calabria, Marseilles
1,160 bbls, $29,000, Calabria, Leghorn
5 bbls, $130, Minnehaha, London
200 bbls, $5,600, Prinzess Irene, Genoa
60 bbls, $1,270, Finland, Antwerp
31 bbls, 160 cs, $1,644, Sibiria, Jamaica
165 cs, $986, Carolina, Porto Rico
8 bbls, $232, Morro Castle, Havana
90 bbls, 1,194 cs, $10,102, Cherokee, Hayti
10 cs, $60, Maracaibo, Coro
2 bbls, 350 cs, $2,864, Maracaibo, Curacao
7 bbls, 75 cs, $602, Prinz Eitel Freidrich, Colon

ESS'L—25 cs, $2,000, Mohawk, Antwerp
5 cs, $425, Monterey, Vera Cruz
3 cs, $215, Mercedes de Larrinaga, Buenos Ayres
2 cs, $150, Manzanillo, Cuba
1 cs, $105, Seguranca, Cuba
67 cs, 3 crts, $5,852, Minnehaha, London
2 cs, $96, Sibiria, Cartagena
FISH—250 bbls, $2,929, Armenian, Liverpool
5 bbls, $83, Monterey, Vera Cruz
14 bbls, $675, Burnby, Havre
LARD—20 bbls, $400, Mohawk, Antwerp
3 bbls, $117, Horatio, Montevideo
2 bxs, $16, Vaderland, Antwerp
4 bbls, $88, Danmca, Fredericksted
2 bbls, $47, Manoa, St Croix
25 cs, $250, Afghan Prince, Algoa Bay
35 cs, $324, Afghan Prince, Port Natal
10 bbls, $390, Siegmund, Rio Janeiro
10 cs, $180, Cherokee, Hayti
LINS—10 cs, $74, Atrato, Jamaica
3 cs, $22, Atrato, Colon
55 cs, $290, Brooklyn, Porto Rico
6 bbls, $137, Monterey, Progreso
45 bbls, $999, Tudor Prince, Hong Kong
5 bbls, $114, Carolina, Porto Rico
2 bbls, 5 cs, $72, Cherokee, Hayti
LUB—100,300 gals, $16,855, Mohawk, Antwerp
2,100 gals, $455, Matanzas, Havana
2,300 gals, $463, Horatio, Manao
150 gals, $31, Horatio, Para
200 gals, $31, Horatio, Iquitos
35,050 gals, $6,841, Vandalia, Yokohama
21,000 gals, $3,380, Vandalia, Singapore
3,000 gals, $576, Vandalia, Moji
102,150 gals, $9,248, Vandalia, Kobe
5,050 gals, $510, Vandalia, Manila
2,750 gals, $2,317, Campania, Liverpool
23,650 gals, $4,641, Vaderland, Antwerp
126,250 gals, $13,375, Titian, Manchester
105,380 gals, $1,404, Furnessia, Glasgow
13,600 gals, $2,040, Breslau, Bremen
62,850 gals, $8,375, Armenian, Liverpool
250 gals, $85, Manoa, Barbadoes
350 gals, $85, Manoa, Demerara
1,500 gals, $175, Brooklyn, Porto Rico
8,150 gals, $1,092, Afghan Prince, Durban
38,800 gals, $7,524, Afghan Prince, Delagoa Bay
19,250 gals, $2,160, Afghan Prince, Pt Natal
2,960 gals, $723, Afghan Prince, East London
46,900 gals, $4,690, Potsdam, Roterdam
3,000 gals, $746, Potsdam, Saarbruchen
6,000 gals, $1,100, Potsdam, Munchen
8,500 gals, $1,612, Potsdam, Dinsburg
9,000 gals, $1,540, Potsdam, Koln
10,500 gals, $2,185, Potsdam, Mannheim
5,500 gals, $1,380, Potsdam, Frankfort
10,000 gals, $1,412, Potsdam, Nurnburg
3,550 gals, $743, Kentucky, Copenhagen
2,750 gals, $275, Lombardia, Palermo
12,500 gals, $4,714, Panama, Cristobal
1,250 gals, $140, Bristol City, Bristol
6,000 gals, $1,102, Petersburg, Libau
10,250 gals, $1,010, Petersburg, Rotterdam
9,200 gals, $920, Brandenburg, Copenhagen
250 gals, $25, Brandenburg, Christiania
2,000 gals, $200, Brandenburg, Dantzig
5,400 gals, $545, Brandenburg, Gothenburg
11,250 gals, $1,125, Brandenburg, Malmo
30,000 gals, $3,000, Brandenburg, Stettin
5,900 gals, $565, Brandenburg, Stockholm
6,250 gals, $625, Emmi Arp, Oporto
12,000 gals, $1,740, Lord Erne, Rotterdam
22,250 gals, $2,683, La Savoie, Havre
1,850 gals, $680, Paloma, Cuba
180 gals, $40, Monterey, Frontera
620 gals, $122, Monterey, Vera Cruz
6,550 gals, $756, Largo Law, Auckland
2,750 gals, $159, Largo Law, Dunedin
26,470 gals, $7,078, Largo Law, Melbourne
25,150 gals, $3,236, Largo Law, Wellington
34,600 gals, $3,328, Largo Law, Sydney
3,350 gals, $335, Largo Law, Littleton
3,500 gals, $744, Mercedes de Larrinaga, Montevideo
40,150 gals, $11,277, Mercedes de Larrinaga, Buenos Aires
1,250 gals, $205, Shira, Callao
6,200 gals, $1,253, Shira, Valparaiso
800 gals, $284, Shira, Talcahuano
2,500 gals, $563, Shira, Iquique
250 gals, $60, Shira, Salonica
8,750 gals, $1,030, Burnby, Dunkirk
182,300 gals, $21,869, Burnby, Havre
30,950 gals, $4,822, Batavia, Hamburg
600 gals, $182, Siegmund, Santos
13,660 gals, $1,734, Siegmund, Rio Janiero
7,450 gals, $1,950, Manzanillo, Cuba
1,900 gals, $587, Seguranca, Cuba
1,750 gals, $330, Santiago, Tampico
4,500 gals, $1,320, Roda, Bordeaux
2,500 gals, $350, United States, Copenhagen
28,050 gals, $4,406, Tudor Prince, Singapore
6,000 gals, $902, Tudor Prince, Shanghai
950 gals, $205, Tudor Prince, Hong Kong
14,000 gals, $9,575, Caledonia, Glasgow
145,750 gals, $15,341, Calabria, Marseilles
132,100 gals, $15,746, Minnehaha, London
20,250 gals, $2,475, Campania, Liverpool
55,000 gals, $9,292, Prinzess Irene, Genoa
12,200 gals, $2,217, Livonia, Riga
16,250 gals, $3,614, Livonia, Moscow
73,650 gals, $7,428, Finland, Antwerp
65,150 gals, $—, Morro Castle, Havana
1,210 gals, $91, Hawkes Bay, Sydney
17,050 gals, $3,675, Kasama, Fremantle
16,200 gals, $1,881, Kasama, Brisbane
26,150 gals, $5,221, Kasama, Adelaide
27,250 gals, $2,725, Kasama, Melbourne
19,750 gals, $2,025, Kasama, Sydney
500 gals, $161, Cherokee, Hayti
1,000 gals, $346, Maracaibo, La Guayra
1,900 gals, $575, Gerty, Constantinople
MEAL—45 bgs, 5,625 lbs, $80, Manoa, Demerara
35 bgs, 4,375 lbs, $68, Manoa, Dominica
64 bgs, 8,000 lbs, $125, Carolina, Pto Rico
MYRBANE—18 cs, $214, Matanzas, Havana
NEATSFOOT—10 cs, $69, Alliance, Cristobal
OLEO—35 tcs, $1,395, Mohawk, Antwerp
75 tcs, 34,025, Silvia, St Johns
400 tcs, $15,425, Breslau, Bremen
225 tcs, $8,150, Armenian, Liverpool
2,613 tcs, $89,901, Potsdam, Rotterdam
125 tcs, $5,450, Kentucky, Copenhagen
70 tcs, $2,233, Brandenburg, Bremen
35 tcs, $1,385, Cedric, Liverpool
931 tcs, 85 bbls, $40,008, Batavia, Hamburg
25 tcs, $1,200, Caledonia, Glasgow
250 tcs, $9,750, Minnehaha, London
137 tcs, $3,810, Campania, Liverpool
195 tcs, $6,296, Prinzess Irene, Genoa.
PALM—6 bbls, $164, Lavinia M Snow, Hayti
PAR—40 cs, $480, Emmi Arp, Oporto
PEPP—10 cs, $670, Potsdam, Rotterdam
5 bxs, $2,000, Batavia, Hamburg
RED—175 bbls, $3,475, Vaderland, Antwerp
100 bbls, $1,950, Finland, Antwerp
ROSIN—50 bbls, $782, Afghan Prince, Algoa Bay
50 bbls, $783, Afghan Prince, Pt Elizabeth
SALAD—60 bbls, 600 cs, $9,789, Afghan Prince, Durban
355 cs, $5,693, Morro Castle, Havana
30 bbls, 200 cs, $1,617, Largo Law, Wellington
20 cs, $89, Largo Law, Lyttleton
30 cs, $134, Largo Law, Dunedin
100 cs, $265, Largo Law, Auckland
1,900 cs, $16,650, Shira, Valparaiso
100 cs, $786, Shira, Antofogasta
50 cs, $476, Manzanillo, Cuba
160 cs, $1,422, Seguranca, Cuba
60 cs, $213, Carolina, Pto Rico
200 cs, $1,073, Kasama, Melbourne
30 cs, $261, Kasama, Sydney
SEWING MACH—12 cs, $35, Atrato, Colon
20 cs, $70, Horatio, Manao
3 cs, $18, Horatio, Iquitos
3 cs, $28, Silvia, Halifax
12 cs, $31, Monterey, Vera Cruz
65 cs, $170, Monterey, Progreso
12 cs, $63, Largo Law, Lyttleton
30 cs, $90, Shira, Talcahuano
20 cs, $55, Santiago, Tampico
25 cs, $82, Avon, Sydney
TANNERS—5 bbls, $—, Santiago, Tampico
TAR—15 dms, 15 bbls, 20 cs, $700, Santiago, Tampico
OLEOMARGARINE STOCK—185 tcs, $5,785, Potsdam, Rotterdam
70 tcs, $2,200, Batavia, Hamburg
OPIUM—13 cs, $5,900, Campania, Liverpool
PAINT—50 cs, $120, Atrato, Cartagena
2 cs, $28, Atrato, Jamaica
10 cs, $150, Mohawk, Antwerp
364 cs, $3,330, Vandalia, Manila
25 cs, $—, Vandalia, Kobe
6 pkgs, $30, Silvia, Halifax
5 bbls, $100, Titian, Manchester
12 bbls, 2 pkgs, 4 cs, $1,538, Armenian, Liverpool
14 bbls, 29 bxs, $826, Brooklyn, Pto Rico
191 cs, $668, Afghan Prince, Cape Town
42 cs, $242, Afghan Prince, East London
10 bxs, $140, Flandria, Hayti
44 bxs, 2 bbls, 40 bgs, $1,095, Morro Castle Havana
5 cs, $440, Potsdam, Rotterdam
7 cs, $70, Kentucky, St Petersburg
5 bbls, $—, Kentucky, Stockholm
192 pkgs, 2 cs, $826, Panama, Cristobal
10 bbls, $240, Lord Erne, Rotterdam
1 bbl, 14 bxs, $92, Paloma, Cuba
35 bbls, 5 cs, 14 kgs, $404, Monterey, Havana
370 cs, $3,703, Monterey, Frontera
67 cs, $300, Monterey, Vera Cruz
10 bxs, $43, Alleghany, Hayti
40 bbls, 40 cs, $852, Largo Law, Wellington
88 cs, 600, Largo Law, Wanganani
49 cs, $305, Largo Law, Auckland
39 cs, 2 kgs, $350, Largo Law, Sydney
74 cs, $500, Largo Law, Lyttleton
1 bbl, 36 cs, $325, Largo Law, Melbourne
2 cs, $40, Largo Law, Dunedin
8 cs, $211, Mercedes de Larrinaga, Montevideo
10 cs, $540, Mercedes de Larrinaga, Buenos Aires
2 cs, $94, Shira, Iquique
10 cs, $189, Shira, Valparaiso
12 bbls, 60 cs, $1,090, Batavia, Hamburg
20 cs, $155, Siegmund, Rio Janeiro
1 bbl, 5 bxs, 3 cs, $96, Manzanillo, Cuba
11 bbls, $191, Seguranca, Cuba
4 bbls, 8 cs, 14 kgs, $240, Santiago, Tampico
51 cs, $350, Finland, Antwerp
12 cs, $134, Sibiria, Cartagena
25 bbls, 30 cs, 10 kgs, 76 bxs, $1,479, Carolina, Pto Rico
9 cs, 3 bxs, 6 bbls, $523, Morro Castle, Havana
70 cs, $350, Hawkes Bay, Brisbane
61 cs, $181, Hawkes Bay, Sydney
200 cs, $2,200, Hawkes Bay, Adelaide
550 cs, 55 bxs, 8 kgs, $2,181, Hawkes Bay, Fremantle
30 cs, $410, Kasama, Brisbane
3 bxs, 10 kgs, $67, Cherokee, Hayti
5 bbls, 5 cs, $136, Maracaibo, Maracaibo
PEPPER—2 bgs, $17, Atrato, Colon
10 bgs, $140, Brooklyn, Pto Rico
5 cs, $38, Panama, Cristobal
2 bgs, $45, Alleghany, Hayti
4 bgs, $45, Seguranca, Cuba
5 bgs, $73, Santiago, Tampico
8 bgs, $76, Sibiria, Jamaica
14 bgs, $145, Cherokee, Hayti
4 bgs, $36, Maracaibo, Maracaibo
PETROLEUM CAKE—359 bgs, $438, Calabria, Marseilles
JELLY—12 cs, $198, Atrato, Jamaica
47 cs, $253, Titian, Manchester
7 cs, $200, Armenian, Liverpool
3 cs, $40, Afghan Prince, Pt Natal
2 cs, $99, Largo Law, Melbourne
15 cs, $198, Minnehaha, London
2 cs, $40, Kasama, Fremantle
PIMENTO—3 bgs, $14, Cherokee, Hayti
PITCH—25 bbls, $86, Shira, Talcahuano
50 bbls, $155, Reeva, St John, N B
PLUMBAGO—10 cs, $60, Afghan Prince, Algoa Bay
12 cs, $68, Largo Law, Wellington
POTASH—25 bbls, $1,109, Burnby, Havre
20 cks, $1,950, Minnehaha, London
CHLORATE—30 cs, $366, Matanzas, Havana
200 cs, $2,300, Shira, Valparaiso
30 kgs, $224, Sibiria, Jamaica
PUMICE STONE—10 bbls, $49, Morro Castle, Havana
PUTTY—100 tubs, $143, Largo Law, Wellington
ROSIN—5 bbls, $58, Horatio, Para
132 bbls, $473, Horatio, Manaos
115 bbls, $1,235, Vandalia, Kobe
100 bbls, $1,030, Vandalia, Yokohama
10 bbls, $70, Vandalia, Manila
100 bbls, $889, Silvia, Halifax
300 bbls, $3,150, Avon, Sydney
135 bbls, $1,164, Lavinia M Snow, Hayti
150 bbls, $1,709, Afghan Prince, East Lond
65 bbls, $695, Alleghany, Hayti
510 bbls, $4,702, Mercedes de Larrinaga, Montevideo
450 bbls, $3,950, Shira, Valparaiso
50 bbls, Shira, Callao
50 bbls, $440, Siegmund, Bahia
22 bbls, $197, Manzanillo, Cuba
100 bbls, $690, Caledonia, Glasgow
800 bbls, $7,320, Avon, Melbourne
75 bbls, $677, Sibiria, Santos
500 bbls, $4,828, Hawkes Bay, Adelaide
300 bbls, $2,932, Hawkes Bay, Fremantle
400 bbls, $3,490, Hawkes Bay, Melbourne
115 bbls, $1,010, Cherokee, Hayti
3 bbls, $24, Maracaibo, Maracaibo
100 bbls, $90, Prinz Eitel Friedrich, Pt Limon
SALTPETER—1,027 bgs, $8,200, Irene, Martinique
SHEEP DIP—41 bbls, $920, Breslau, Bremen
25 cs, $300, Potsdam, Rotterdam
10 bbls, 35 cs, $300, Brandenburg, Bremen
SHELLAC—5 bgs, $250, Atrato, Colon
SILEX—60 bbls, Lavinia M Snow, Hayti
8 bbls, $20, Manzanillo, Cuba
SOAP—6 bbls, 600 bxs, $1,014, Atrato, Colon
300 cs, 218 pkgs, $1,741, Horatio, Iquitos
50 cs, $164, Vandalia, Manila
30 bbls, Vandalia, Kobe
40 cs, $238, Lavinia M Snow, Hayti
3,910 cs, 1,000 bxs, $11,702, Brooklyn, Porto Rico
4 pkgs, $135, Afghan Prince, Port Elizabeth
30 cs, 525 bxs, $868, Panama, Cristobal
960 cs, $2,882, Alacra, Porto Rico
62 cs, $290, Paloma, Cuba
116 cs, $1,583, Alleghany, Hayti
2 cs, $250, Largo Law, Auckland
2 cs, $25, Largo Law, Melbourne
2 bxs, $208, Shira, Arica
2 bxs, $138, Shira, Talcahuano
10 cs, $237, Cedric, Liverpool
70 cs, $182, Seguranca, Cuba
20 cs, $64, Seguranca, Nassau
50 cs, $112, Caledonia, Glasgow
130 cs, 50 bxs, $3,719, Minnehaha, London
5 cs, $625, Avon, Melbourne
13 bxs, $65, Finland, Antwerp
200 cs, $356, Sibiria, Savanilla
350 cs, 15 bxs, $996, Carolina, Porto Rico
227 cs, $618, Morro Castle, Havana
20 cs, $500, Hawkes Bay, Fremantle
450 cs, 110 bxs, $1,222, Cherokee, Hayti
STOCK—100 bbls, $935, Furnessia, Glasgow
200 bbls, $1,350, Armenian, Liverpool
SODA ASH—30 bbls, 9,274 lbs, $107, Lavinia M Snow, Hayti
20 bbls, 6,103 lbs, $70, Sibiria, Savanilla
BICARB—200 kgs, 22,400 lbs, $209, Santiago, Tampico
60 bbls, 24,000 lbs, $264, Morro Castle, Havana
10 kgs, $17, Monterey, Vera Cruz
35 kgs, 3,920 lbs, $54, Shira, Callao
22 kgs, 2,464 lbs, $33, Sibiria, Jamaica
75 bbls, $330, Cienfuegos, Tampico
CAUST—10 dms, $178, Windber, Pto Rico
18 dms, 12,150 lbs, $285, Lavinia M Snow, Hayti
10 dms, 5,258 lbs, $170, Alleghany, Hayti
50 dms, 38,526 lbs, $843, Shira, Talcahuano
50 dms, 36,489 lbs, $840, Shira, Valparaiso
4 dms, 2,784 lbs, $63, Manzanillo, Cuba
10 dms, 6,750 lbs, $162, Sibiria, Savanilla
2 dms, $40, Prinz Eitel Friedrich, Pt Limon
NITR—97 bgs, 19,100 lbs, $500, Silvia, Halifax
SAL—60 bbls, 190 kgs, 49,410 lbs, $1,850, Silvia, Halifax
50 bbls, 18,750 lbs, $134, Shira, Talcahuano
50 bbls, 18,750 lbs, $134, Shira, Valparaiso
5 bbls, 1,875 lbs, $13, Sibiria, Jamaica
10 bbls, 6,096 lbs, $49, Sibiria, Cartagena
SIL—30 bbls, 18,494 lbs, $143, Lavinia M Snow, Hayti
15 bbls, 9,005 lbs, $72, Sibiria, Savanilla
SPERMACETI—35 cs, $650, St Louis, Southampton
SPONGE—94 bls, $1,500, Breslau, Bremen
100 bls, $1,789, La Savoie, Havre
177 bls, $2,400, Prinzess Irene, Genoa
STARCH—3,925 bgs, $21,980, Titian, Manchester
200 bgs, $1,120, Furnessia, Glasgow
100 cs, $60, Paloma, Cuba
1,275 bgs, $7,140, Minnehaha, London
1,200 bgs, $3,360, Finland, Antwerp
200 bgs, $90, Morro Castle, Havana
STEARINE—25 bbls, $415, Francesca, Trieste
15 cs, $370, Seguranca, Cuba
GREASE—320 tcs, $7,419, Burnby, Havre
TALCUM POWDER—30 bgs, $75, Sibiria, Cartagena
50 bgs, $68, Morro Castle, Havana
TALLOW—150 tcs, 64,656 lbs, $3,730, Mohawk, Antwerp
90 bbls, 36,340 lbs, $2,612, Lavinia M Snow, Hayti
110 bbls, 42,783 lbs, $2,850, Potsdam, Rdam
65 bbls, 23,296 lbs, $1,572, Alleghany, Hayti
132 hhds, 160,197 lbs, $10,212, Francesco, Trieste
350 tcs, 143,143 lbs, $7,701, Majestic, Lpool
30 tcs, $719, Cedric, Liverpool
25 tcs, $760, Batavia, Hamburg
250 tcs, 49,606 lbs, $6,779, Campania, Lpool
723 tcs, 295,192 bls, $18,550, Finland, Atwp
30 bbls, 11,578 lbs, $647, Sibiria Cartagena
22 bbls 1,058 lbs, $476, Morro Castle, Havana
60 bbls, 25,350 lbs, $1,804, Cherokee, Hayti
TANNING EXT—411 bbls, $1,656, Santiago, Tampico
30 bbls, $456, Largo Law, Wellington
63 bbls, $960, Largo Law, Melbourne
30 bbls, $454, Largo Law, Sydney
TAR—5 bbls, $35, Silvia, Halifax
25 cs, $62, Monterey, Havana
10 bbls, $72, Shira, Talcahuano
50 bbls, $345, Avon, Melbourne
25 bbls, $163, Avon, Sydney
TURPENTINE—10 cs, $47, Atrato, Jamaica
3 bbls, $108, Silvia, Halifax
5 cs, $28, Manoa, St Lucia
6 cs, $48, Manoa, Barbadoes
50 cs, $295, Brooklyn, Porto Rico
88 cs, $708, Afghan Prince, Cape Town
75 cs, $650, Afghan Prince, Algoa Bay
25 cs, $240, Afghan Prince, Port Natal
30 cs, $420, Paloma, Cuba
40 cs, $285, Monterey, Progreso
2,000 cs, $15,264, Largo Law, Sydney
5 cs, $44, Largo Law, Lyttleton
25 cs, $185, Largo Law, Wellington
200 cs, $760, Mercedes de Larrinaga, Montevideo
850 cs, $6,798, Shira, Vera Cruz
100 cs, $790, Shira, Callao
133 cs, $1,121, Shira, Talcahuano
100 cs, $804, Siegmund, Rio Janeiro
25 cs, $120, Seguranca, Cuba
30 cs, $275, Tudor Prince, Shanghai
305 cs, $1,843, Morro Castle, Havana
10 cs, $76, Kasama, Brisbane
5 cs, $39, Cherokee, Hayti
ULTRAMARINE BLUE—4 bbls, $228, Silvia, Halifax
VARNISH—200 gls, $650, Atrato, Colon
100 gls, $89, Horatio, Manaos
1,400 gls, $1,080, Vandalia, Manila
25 gls, $72, Silvia, Halifax
200 gls, $225, Santiago, Tampico
260 gls, $189, Titian, Manchester
2,860 gls, $1,284, Furnessia, Glasgow
230 gls, $98, Brooklyn, Porto Rico
150 gls, $108, Afghan Prince, Port Natal
30 gls, $36, Afghan Prince, Delagoa Bay
150 gls, Potsdam, Rotterdam
320 gls, $882, Kentucky, Copenhagen
460 gls, $455, Monterey, Havana
2,000 gls, $616, Batavia, Hamburg
85 gls, $70, Manzanillo, Cuba
200 gls, $110, Seguranca, Nassau
70 gls, $44, Seguranca, Jamaica
160 gls, $90, Santiago, Tampico
250 gls, $106, Minnehaha, London
190 gls, $266, Prinzess Irene, Genoa
530 gls, $622, Finland, Antwerp
540 gls, $435, Morro Castle, Havana
510 gls, $971, Hawkes Bay, Melbourne
100 gals, $82, Hawkes Bay, Sydney
190 g's, $313, Cienfuegos, Tampico
WAX—125 bbls, $1,400, Titian, Manchester
400 bbls, Armenian, Liverpool
10 cs, $138, Petrdam, Rotterdam
8 bbls, $97, Kentucky, Copenhagen
100 bgs, $742, Monterey, Progreso
300 bbls, $3,667, Cedric, Liverpool
20 bbls, $220, Tudor Prince, Shanghai
245 bbls, $3,201, Caledonia, Glasgow
35 bgs, 100 bbls, $3,474, Minnehaha, London
PAR—74 bbls, 59 cs, 50 bgs, 46,422 lbs, $2,100, Mohawk, Antwerp
15 cs, $275, Horatio, Para
499 bbls, Vandalia, Kobe
405 bbls, 115,151 lbs, $5,760, Titian, Manchester
432 bbls, 123,109 lbs, $6,160, Furnessia, Glasgow
1,000 bbls, 448,027 lbs, $22,400, Armenian, Liverpool
50 cs, 11,065 lbs, $600, Afghan Prince, Algoa Bay
250 bgs, 44,496 lbs, $2,400, Afghan Prince, Cape Town
2,008 bgs, 537,100 lbs, $24,095, Afghan Prince, Delagoa Bay
545 cs, 123,046 lbs, $6,540, Afghan Prince, East London
200 bgs, 46,957 lbs, $2,400, Kentucky, St Petersburg
400 bgs, 90,287 lbs, $4,800, Lombardia, Palermo
300 bgs, 69,496 lbs, $3,600, Lombardia, Odessa
150 cs, 35,693 lbs, $1,800, La Savoie, Havre

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SOLE AGENTS FOR THE UNITED STATES AND CANADA OF

The United Alkali Co., Limited, of Great Britain,

FOR THE SALE OF THEIR VARIOUS BRANDS OF

BLEACHING POWDER

75 bgs, 12,600 lbs, $209, Monterey, Progreso
150 cs, 37,220 lbs, $1,800, Largo Law, Auckland
160 cs, 37,089 lbs, $1,820, Largo Law, Dunedin
160 cs, 37,089 lbs, $1,920, Largo Law, Lyttleton
200 cs, 49,497 lbs $2,400, Largo Law, Wellington
1,120 bbls, 314,877 lbs, $15,680, Caledonia, Glasgow
985 bgs, 221,211 lbs, $11,820, Calabria, Marseilles
3,265 bbls, 988,219 lbs, $49,125, Minnehaha, London
52 bgs, $769, Finland, Antwerp
500 cs, 124,844 lbs, $6,000, Kasama, Melbourne
250 cs, 56,370 lbs, $3,000, Kasama, Sydney
50 cs, 12,308 lbs, $600, Kasama, Fremantle
16 bgs, $129, Prinz Eitel Friedrich, Pt Limon
1,850 bgs, 411,953 lbs, $22,200, Gerty, Genoa
WHITE LEAD—10 kgs, $18, Atrato, Jamaica
150 kgs, $948, Panama, Cristobal
40 kgs, $122, Allianca, Cristobal
65 bbls, $1,723, Lord Erne, Rotterdam
80 kgs, $125, Monterey, Havana
22 kgs, $137, Monterey, Progreso
5 cs, $23, Flandria, Jamaica
ZINC, OXIDE—100 bbls, 24,500 lbs, $850, Furnessia, Glasgow
250 bbls, 55,125 lbs, $2,500, Lombardia, Smyrna
105 bbls, 23,152 lbs, $1,000, Brandenburg, Bremen
200 bbls, 44,800 lbs, $1,700, Cedric, Liverpool
99 bbls, 21,830 lbs, $1,000, Burnby, Havre
450 bbls, 89,600 lbs, $3,400, Minnehaha, London
200 bbls, 44,100 lbs, $2,000, Gerty, Venice
SKIM—250 bbls, $2,800, Russ, Rotterdam

Boston Exports.

BONE, DUST—600 bgs, $690, Bravo, Yarmouth, N S
GR—200 bgs, $245, Bravo, Yarmouth, N S
DRUGS—4 cs, $61, Georgian, London
DYESTUFF—1 bbl, $75, Pretoria, Glasgow
ETHER—1 bbl, 1 bx, $107, A W Perry, Halifax
FERTILIZER—200 bgs, $194, Bravo, Yarmouth, N S
GREASE—300 bbls, $4,953, Toronto, Hull
169 bbls, $3,500, Pretoria, Glasgow
300 bbls, $781, A W Perry, Halifax
150 bbls, $2,932, Toronto, Hull
MEDICINE—1,298 pkgs, $2,350, Georgian, London
OIL, LUB—1,200 galls, $276, Boston, Yarmouth, N S
6,205 gals, $1,660, A W Perry, Halifax
OLEO—200 tcs, $7,500, Toronto, Hull
PAINT—1 cs, $16, Boston, Yarmouth, N S
45 cs, $550, A W Perry, Halifax
SHELLAC—10 cs, $196, A W Perry, Halifax
SOAP—9 cs, 3 crts, $1,030, Pretorian, Glasgow
30 bbls, $315, Gregorian, London
SODA—15 bxs, $18, Boston, Yarmouth, N S
STARCH—5 bbls, $50, Georgian, London
TALLOW—90 bbls, $2,350, Georgian, London

Philadelphia Exports.

ALCOHOL, WOOD—1,450 bbls, Pallanza, Hamburg
AMMONIA—200 cyls, Manch Corp, Manchester
DYEWOOD EXT—275 bbls, Westerniand, Liverpool
55 bbls, Manch Corpn, Manchester
GLUCOSE—1,200 bbls, Manch Corpn, Manchester
GRAPE SUGAR—500 bgs, Westerniand, Liverpool
1,000 bgs, Manch Corpn, Manchester
GRAPHITE—254 cks, Pallanza, Hamburg
GREASE—10,000 gals, 50 tcs, Westerniand, Liverpool
20 bbls, Pallanza, Hamburg
MAGNESIA—30 bbls, Mackinaw, London
65 bbls, Manch Corpn, Manchester
OIL, LUB—38,700 gals, Westerniand, Liverpool
13,500 gals, Mackinaw, London
71,677 gals, Pallanza, Hamburg
27,785 gals, Manch Corpn, Manchester
MIN'L COLZA—10 bbls, Westerniand, Liverpool
530 bbls, Mackinaw, London
10 bbls, Pallanza, Hamburg
310 bbls, Manch Corpn, Manchester
OLEO—70 tcs, Elswick House, Copenhagen
OLEOMARGARINE STOCK—70 tcs, Elswick House, Copenhagen
PET GREASE—13,850 gals, Westerniand, Liverpool
SAL SKIM—573 bbls, Westerniand, Liverpool
SOAP—7,000 bxs, Manch Corpn, Manchester
STARCH—30 bbls, Westerniand, Liverpool
1,720 bgs, Manch Corpn, Manchester
TALLOW—400 tcs, Elswick House, Copenhagen
750 tcs, Westerniand, Liverpool
260 tcs, Pallanza, Hamburg
WAX—100 bbls, Westerniand, Liverpool
PAR—300 bbls, Westerniand, Liverpool
325 bbls, Manch Corpn, Manchester
ZINC DROSS—152 bbls, Mackinaw, London
SKIM—156 pkgs, Manch Corpn, Manchester

Baltimore Exports.

CARBON BLACK—247 bbls, Stuttgart, Bremen
CHALK—21 cs, Lord Londonderry, Dublin
COPPER SULPH—139 bbls, Durango, Rotterdam
104 bbls, Queen Wilhelmina, Rotterdam
139 bbls, Hampstead, Antwerp
139 bbls, Tampico, Rotterdam
GLUCOSE—300 bbls, Ivernmore, Liverpool
GREASE—120 bbls, 71 tcs, Ivernmore, Liverpool
LINSEED CAKE—1,387 sks, Lord Londonderry, Dublin
805 sks, Durango, Rotterdam
2,502 sks, Queen Wilhelmina, Rotterdam
OIL, CAKE—500 sks, Louisiana, Copenhagen
COTTONSEED—200 bbls, Durango, Rotterdam
300 bbls, Queen Wilhelmina, Rotterdam
100 bbls, Tampico, Rotterdam
LUB—6,000 gals, Lord Londonderry, Cardiff
33,000 gals, Durango, Rotterdam
15,000 gals, Queen Wilhelmina, Rotterdam
2,900 gals, Stuttgart, Bremen
3,000 gals, Ivernmore, Liverpool
OLEO—1,210 tcs, Stuttgart, Bremen
41 tcs, Ivernmore, Liverpool
OLEOMARGARINE, STOCK—40 tcs, Durango, Rotterdam
SOAP STOCK—240 bbls, Ivernmore, Liverpool
TALLOW—160 tcs, Ivernmore, Liverpool
250 tcs, Tampico, Rotterdam
WAX—432 bbls, Ivernmore, Liverpool
ZINC DROSS—251 bbls, Ivernmore, Liverpool

New Orleans Exports.

BONES—247 sks, Oxonian, Antwerp
CANDLES—550 bxs, Excelsior, Havana
COTTONSEED CAKE—77 tons, Flambro, Wyborg
MEAL—558 sks, Brag Head, Belfast
GREASE—125 bbls, Chalmette, Havana
OIL CORN—211 bbls, Oxonian, Antwerp
COTTONSEED—1,510 bbls, St Croix, Hambg
275 bbls, Brag Head, Belfast
100 bbls, Chalmette, Havana
1,355 bbls, Oxonian, Antwerp
100 bbls, Candidate, Liverpool
25 bbls, Cuban, Manchester
LUB—50,000 gals, St Croix, Hamburg
OLEO—70 tcs, St Croix, Hamburg
RED—400 bbls, Oxonian, Antwerp
700 bbls, Cuban, Manchester
PHOSPHATE ROCK—4,000 tons, Bankdale, Rotterdam
ROSIN—9 bbls, Harry T Inge, Anselm
50 bbls, Excelsior, Havana
SOAP—3,920 bbls, Canadian, Liverpool
125 bxs, Appomattox, Bocas del Toro
140 bbls, Cuban, Manchester
STOCK—180 bbls, Canadian, Liverpool
10 bbls, Chalmette, Havana
STEARINE—250 tcs, Oxonian, Antwerp
TALLOW—285 tcs, Canadian, Liverpool
75 tcs, Federica, Trieste
100 bbls, Chalmette, Havana
965 tcs, Oxonian, Antwerp
TRIPOLI—200 bgs, Oxonian, Antwerp
To New York—Sulphur, 4,500 tons.

Galveston Exports.

COTTONSEED MEAL—27,080 sks, $55,000, Prof Woermann, Bremen
31,806 sks, $42,597, Capella, Liverpool
44,604 sks, $137,200, Epsom, Hamburg
7,840 sks, $9,450, Barra, Bremen
OIL, COTTONSEED—250 bbls, $5,000, Epsom, Hamburg

Wilmington, N. C., Exports.

ROSIN—2,400 bbls, Groveland, Glasgow

Norfolk Exports.

GLUCOSE—540 bbls, $7,691, Hestia, Glasgow
OIL, COTTONSEED—75 bbls, $1,269, Hestia, Glasgow
SOAP STOCK—312 bbls, Hestia, Glasgow

San Francisco Exports.

ACID—2 dms, Amy Turner, Honolulu
40 cbys, City of Para, Ancon
DRUGS—7 pkgs, Amy Turner, Honolulu
13 pkgs, Mariposa, Tahiti
34 pkgs, Spokane, Victoria
GLASS—12 bxs, Sapac, Valparaiso
OPIUM—169 lbs, Mariposa, Tahiti
PAINT—4 pkgs, City of Puebla, Victoria
34 pkgs, Mariposa, Tahiti
4 pkgs, City of Para, Mexico
29 pkgs, City of Para, Central Americ
PUTTY—820 lbs, Mariposa, Tahiti
QUICKSILVER—11 flasks, City of Para, Central America
SOAP—60 cs, Mariposa, Tahiti
250 cs, Amy Turner, Honolulu
SULPHUR—6,600 lbs, City of Puebla, Victoria
10,000 lbs, City of Para, Central America
TALLOW—30,984 lbs, City of Para, Central America
TAR—3 cs, Mariposa, Tahiti
3 bbls, City of Para, Central America
TURPENTINE—5 cs, Mariposa, Tahiti
WHITE LEAD—263 kgs, 3 cs, City of Para, Central America
TO NEW YORK—ANTIMONY—79,956 lbs
DRUGS—40 pkgs
LEAD—651,656 lbs
ZINC DROSS—60,262 lbs

Savannah Clearances to New York.

Week ending April 26.

ROSIN—3,051 bbls
TURPENTINE—850 bbls

Savannah Clearances to Baltimore.

Week ending April 26.

ROSIN—852 bbls
TURPENTINE—215 bbls

Savannah Clearances to Boston.

Week ending April 26.

ROSIN—22 bbls
TURPENTINE—398 bbls

Savannah Clearances to Philadelphia.

Week ending April 26.

ROSIN—1,949 bbls
TURPENTINE—642 bbls

Savannah Clearances to Interior Points.

Week ending April 26.

ROSIN—402 bbls, Ga Cent Ry
203 bbls, A C L Ry
13 bbls, S A L Ry
TURPENTINE—138 bbls, A C L Ry
18 bbls, S A L Ry

CHARTERS.

Following is a list of vessels chartered at principal ports during the past week to convey products to or from American ports:—

FERTILIZER—Sch Anne Lord, 246 tons, from Cateret to Bowdoinham, $1.25
QUEBRACHO WOOD—Br str Dacre Hill, 1,714 tons, from Caiastine to N Y, 18s, September
PHOSPHATE—Br str Crathorne, 1,695 tons, from Tampa to Helsingborg or Landscrona, 15s, May-June

NEW YORK DOMESTIC RECEIPTS.

Week ending April 26.

ALCOHOL—480 bbls, order, D, L & W R R
10 bbls, order, New Orleans
WOOD—275 bbls, W S Gray, L V R R
90 bbls, 2 dms, W S Gray, F R L
BARYTES—197 bbls, order, O D S S L
CHICLE—261 bls, A S Lascelles & Co, New Orleans
32 bls, Eggers & H, New Orleans
CLAY—150 cks, order, Charleston
2,286 sks, order, S S S L
1,837 sks, order, Jacksonville
COTTONSEED MEAL—3,056 sks, G B Robinson, Galveston
2,327 sks, order, Galveston
FLAXSEED—121 cars, Am Linseed Co, L V R R
10 cars, Natl Lead Co, L V R R
GREASE—62 tcs, export, D, L & W R R
440 bbls, Vacuum Oil Co, P R R
25 bbls, order, D, L & W R R
100 bbls, E Valk & Co, E R R
75 bbls, 80 tcs, order, B & O R R
150 tcs, order, L V R R
100 bbls, T T Pergamente, P R R
100 tcs, Vandenhove & Co, L V R R
HIGHWINES—1,115 bbls, order, D, L & W R R
80 bbls, order, P R R
325 bbls, order, New Orleans
60 bbls, order, H R R R
95 bbls, order, E R R
LEAD—6,849 pigs, Am Metal Co, Galveston
80 bbls, order, S S S L
400 pigs, order, Galveston
2,849 pigs, Am Smelting & Ref Co, Galveston
OIL, CAKE—3,000 sks, export, D, L & W R R
6,450 sks, Munn & J, D, L & W R R
530 sks, export, P R R
COTTONSEED—2,520 bbls, order, E R R
1,800 bbls, Am Cotton Oil Co, New Orleans
85 bbls, Henson & F Co, New Orleans
750 bbls, Williams-Flash Co, New Orleans
500 bbls, order, Charleston
1,100 bbls, 119 cs, order, S S S L
100 bbls, order, D, L & W R R
468 bbls, order, P R R
500 bbls, Williams-F Co, Galveston
529 bbls, order, New Orleans
2 bbls, order, Wilmington
150 bbls, order, J C R R
200 bbls, order, O D S S L
350 bbls, W R Cantrell, New Orleans
100 bbls, Poole & Macy, D, L & W R R
100 bbls, Procter & G, D, L & W R R
LINS—60 bbls, De Voe & R, D, L & W R R
63 bbls, F J Cooledge, D, L & W R R
190 bbls, export, E R R
87 bbls, T R Bagot, P R R
125 bbls, Macy & D, E R R
100 bbls, Fontana & Co, D, L & W R R
160 bbls, order, E R R
68 bbls, order, D, L & W R R
60 bbls, Macy & J, P R R
60 bbls, export, D, L & W R R
60 bbls, W J Mathews, D, L & W R R
LUB—200 bbls, order, P R R
297 bbls, Hanseatic Oil Co, P R R
25 bbls, order, J C R R
61 bbls, F A Marsily & Co, P R R
60 bbls, Lunham & M, P R R
MEAL—500 sks, export, D, L & W R R
1,765 sks, export, L V R R
500 sks, E H Darrell, D, L & W R R
1,500 sks, I H Reed & Co, D, L & W R R
OLEO—568 tcs, order, L V R R
650 tcs, export, D, L & W R R
420 tcs, export, P R R
140 tcs, order, W S R R
180 tcs, order, D, L & W R R
1,163 tcs, export, L V R R
ROSIN—25 bbls, order, S S S L
WOOD—15 bbls, order, Jacksonville
25 bbls, order, Wilmington
OLEOMARGARINE—901 tcs, export, P R R
328 tcs, Schwarzschild & S Co, P R R
296 tcs, export, D, L & W R R
STOCK—100 tcs, order, P R R
PITCH—52 bbls, order, S S S L
25 bbls, order, Wilmington
ROSIN—2,058 bbls, order, Jacksonville
3,051 bbls, order, S S S L
200 bbls, order, Charleston
218 bbls, order, O D S S L
42 bbls, order, Georgetown
1,043 bbls, order, Wilmington
300 bbls, M W Larendon, New Orleans
SOAP STOCK—20 bbls, order, F R L
SPONGE—11 bls, Greek-American Co, Key West
7 bls, McKesson & Robbins, Key West
23 bls, Lasker & Bernstein, Key West
24 bls, order, Key West
229 bls, Lasker & Bernstein, Jacksonville
165 bls, order, Jacksonville
CLIPPINGS—68 bls, Jos S Morris, Key West
STEARINE—65 bbls, order, H R R R
71 tcs, export, P R R
TALLOW—25 tcs, order, L V R R
104 tcs, order, D, L & W R R
84 bbls, Vandenhove & Co, B & O R R
88 bbls, J Finnegan & Co, Galveston
2 bbls, order, O D S S L
100 tcs, 40 bbls, Vandenhove & Co, W S R R
40 tcs, order, E R R
79 bbls, Vandenhove & Co, P R R
192 tcs, export, L V R R
TANNIC EXT—60 bbls, order, Jacksonville
TAR—107 bbls, order, O D S S L
143 bbls, order, Georgetown
633 bbls, order, Wilmington
151 bbls, order, S S S L
TURPENTINE—984 bbls, order, Jacksonville
850 bbls, order, S S S L
1,263 bbls, Am Naval Stores Co, New Orleans
5 bbls, order, O D S S L
105 bbls, order, Georgetown
48 bbls, order, Wilmington

Boston Domestic Receipts.

Week ending April 25.

GREASE—203 bbls
TALLOW—100 bbls

New Orleans Domestic Receipts.

Week ending April 25.

COTTONSEED—4,950 sks, Monroe
420 sks, Bayou Terrebonne
SOAP STOCK—14 bbls, Monroe

Wilmington Domestic Receipts.

Week ending April 25.

ROSIN—610 bbls
TAR—926 bbls
TURPENTINE—70 bbls
CRUDE—74 bbls

(Special to Oil, Paint and Drug Reporter.)

Drawback Regulations on Imported Alcohol.

Washington, April 26, 1907.

The Treasury Department has promulgated a series of regulations for the allowance of drawback of duty paid on imported alcohol and raw sugar subsequently refined and used in the manufacture of medicinal preparations intended for export. The regulations are as follows:—

"On the exportation of medicinal preparations manufactured by Kilmer & Co., of Binghamton, N. Y., with the use of imported alcohol and refined sugar made from imported raw sugar, a drawback will be allowed equal in amount to the duties paid on the alcohol and sugar so used, less the legal deduction of 1 per cent.

"The preliminary entry must show the marks and numbers of the shipping packages and the contents of each separately and in the aggregate.

"The drawback entry must show the total number of bottles of nominal sizes of each kind of preparation exported and the quantity of imported alcohol by volume and the quantity of cane sugar by weight contained therein, and the quantities of each consumed in the manufacture, and, in addition to the usual averments, that the merchandise was manufactured of materials and in the manner set forth in the manufacturer's sworn statement dated February 7, 1907, and schedule attached thereto on file at the port of exit.

"In liquidation the quantities of imported alcohol and refined sugar made from imported raw sugar which may be taken as the basis for the allowance of drawback, may equal the quantities declared in the drawback entry after official verification of exported quantities provided that in no case shall they exceed the quantities shown in said sworn schedule."

Chicago News Letter.

Chicago, April 25, 1907.

The improved weather conditions in the Middle West has been the means of accelerating the movement of paint and kindred products from this market into the hands of retail dealers and contractors. The spring trade up to date has been very satisfactory, the volume of business being equal to last year. Good-sized stocks were sold in January and February for delivery in March, and second and third orders now constitute the bulk of the current business, outside of bulk sales to manufacturing consumers, which continues at the high-water mark. In drugs and chemicals the local houses report trade on a prosperity basis, with demand showing no signs of abatement.

The Drug Trade Club of Chicago will soon enter upon a new era in its history. May 1 its old quarters in the Bismarck Hotel on Randolph street, will be vacated and its new and comfortably furnished home at 44-46 Franklin street will be occupied. This is in the heart of the Chicago drug district. The club has secured possession of the entire third story at the location indicated and have a floor space of 40x85 feet, subdivided into billiard and lounging room, dining room, kitchen and office. A fund of $3,000 is being raised with which to fit up the premises; $1,700 has already been subscribed and the balance is in sight. A. J. Horlick, of the Horlick Food Co., heads the list with a $200 subscription. A chef has been engaged and the club will not depend on the adjoining hotels for its "fodder" after taking possession of its new home.

The wholesale drug house of Morrison, Plummer & Co., will remove May 1 from its present location on Randolph street to its own new seven-story and basement building, at 217-221 Washington street, now receiving its finishing touches at the hands of the contractors. The building is equipped with spiral chutes and gravity package carriers, pneumatic order tubes, speaking tubes and telephone systems. The building has about 90,000 square feet of floor space.

President W. C. Hovey, of the Drug Trade Club, is in receipt of a letter from Dr. H. W. Wiley, the government's chief food expert, in which the latter accepts an invitation to partake of the club's hospitality some time in May, the date to be set later. It is the hope of President Hovey and Secretary Harold Sorby that the date will be early in the month so that the event can serve as a "housewarming" in the new quarters on Franklin street. Other distinguished guests will be present to meet Dr. Wiley.

O. J. Buck, of the Rubber Paint Co., and the Zeno Gum Co., with his family, are occupying their $30,000 residence at Longwood Hills, 14 miles southwest of the city, quite recently completed. It is one of the handsomest country homes in that beautiful and aristocratic section. R. W. Evans, of the Picher Lead Co., has purchased land adjoining the Buck property and will build a home thereon during the coming summer.

W. C. Shurtleff, vice-president and manager of Morrison, Plummer & Co., has gone to Providence, R. I., to install the officers of the State Grand Lodge, Royal Arcanum, acting by special appointment from the Supreme Regent of the order. Mr. Shurtleff is a member of the Supreme Council and Past State Regent of Illinois.

The new Heath & Milligan paint factory is nearing completion and will be ready for occupancy in a few weeks. The building is fire proof and up-to-date fire apparatus is being installed.

The Searle & Hereth Co., manufacturing chemists, removed to St. Louis several months ago, have added to their Chicago force of detail men Owen Murphy, well and favorably known in the local drug trade.

MERCK & CO.
New York
Medicinal
Analytical
Photographic
Technical
Chemicals
of Quality

MICHIGAN ALKALI CO.

WYANDOTTE, MICH.

Manufacturers of

WYANDOTTE CHEMICALS

SODA ASH

48% to 58% (Light and Dense)

BICARB SODA

(Absolutely Pure).

CAUSTIC SODA

60% to 77 % (Special Soft Grades for Grinding).

Special Attention Given to Prompt Shipments and Spot Orders.

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GENERAL CHEMICAL CO.

MAKERS OF

STANDARD CHEMICALS

PHILADELPHIA NEW YORK CHICAGO

ST LOUIS CLEVELAND PITTSBURG BUFFALO SYRACUSE TROY PASSAIC BRIDGEPORT PROVIDENCE

TRIANGLE STAR GRANULAR

BLUE VITRIOL

PRODUCT OF

NICHOLS COPPER CO.

ACIDS:	SULPHURIC, FUMING SULPHURIC, MURIATIC, NITRIC, MIXED, ACETIC, HYDROFLUORIC, BATTERY AND PHOSPHORIC ACIDS, AND BATTERY SOLUTIONS.
SODAS:	SULPHATE, CALCINED SULPHATE, BICHROMATE, BISULPHATE, LIQUID BISULPHITE, SULPHITE, SULPHIDE CRYSTALS, CONCENTRATED SULPHIDE, HYPOSULPHITE PHOSPHATE, ACETATE, SILICATE, CAUSTIC, AND SAL SODAS; AND TRISODIUM PHOSPHATE, GLASSMAKERS SALT CAKE, GLAUBER'S SALT AND NITRE CAKE.
ALUM:	LUMP, BURNT, GROUND AND FILTER ALUMS
ALUMINA:	SULPHATE AND CHLORIDE OF ALUMINA.
TIN:	MURIATE OF TIN CRYSTALS AND MURIATE OF TIN SOLUTION. BICHLORIDE AND OXY MURIATE OF TIN.
AMMONIA:	PHOSPHATE OF AMMONIA, AQUA AND ANHYDROUS AMMONIA.
IRON:	PERCHLORIDE, SULPHIDE, TRUE NITRATE, COPPERAS NITRATE OF IRON AND COPPERAS.
SULPHUR:	ROLL BRIMSTONE, FLOUR AND FLOWERS OF SULPHUR.
LEAD:	ACETATE OF LEAD CRYSTALS AND SOLUTIONS.
ZINC:	ZINC CHLORIDE SOLUTION AND FUSED CHLORIDE OF ZINC.
MAGNESIA:	EPSOM SALT.
COPPER:	SULPHATE OF COPPER OR BLUE VITRIOL.
LIME:	BLEACHING POWDER.
POTASH:	BICHROMATE OF POTASH.

DISTRIBUTORS OF

BAKER & ADAMSON CHEMICAL CO'S.

STANDARD CHEMICALLY PURE

ACIDS AND SALTS

CHEMICAL MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 83.

Saturday Noon, April 27, 1907.

Quiet conditions have prevailed throughout the general chemical market during the past week. The movement on regular contracts continues of fairly steady proportions and no serious accumulation of stocks is reported. The most important feature has been the rapid advance in oxalic acid, caused by the placing of orders sufficient to absorb the bulk of available supplies. Delayed shipments have caused a scarcity of red arsenic and quotations have advanced to 7½@7¾c. Limited supplies of chloride of calcium have established higher quotations for that commodity. A detailed market report of the principal chemicals is given below.

Heavy Chemicals.

ALKALI.—Contract deliveries to the large consumers during the past four months show considerable increase over those for the corresponding period in 1906. There has been no important feature to note since our last report. Favorable weather conditions have facilitated the movement into consuming channels and the market has ruled steady on the basis of 90@95c. for 48 per cent. f. o. b. works, as to quantity and terms of sale. For high test, 82@87½c. is quoted, as to test, quantity and seller.

BICARB OF SODA.—Recent inquiries have resulted in the placing of additional orders for moderate quantities for delivery next month. Prices are firmly sustained on the basis of 1.30c. in bulk, 1.50c. for kegs f. o. b. works, and the usual advance of 20c. all round, delivered in this section, less the usual discount terms.

BLEACHING POWDER.—Deliveries on existing contracts have been sufficient to absorb the bulk of arrivals as they come to hand, thus preventing any large accumulations. Prices remain unchanged on the basis of 1.30c. for English and other makes at 1.25c. and up, as to test, make, quantity and seller. Car lots are held at 1.25c. and up, as to quantity, make and terms of sale, seaboard delivery.

CAUSTIC SODA.—Trade has continued rather quiet with business confined chiefly to the movement on regular contract deliveries. There has been no developments of importance to effect the position of the market and prices have ruled steady on the basis of 1.75@1.80c. and 10c. higher for 60 per cent. f. o. b. works, as to quantity and terms of sale. Powdered has been selling in a routine way at 2⅝@3c., as to test, quantity and point of delivery.

SALT CAKE.—Business has been of seasonable proportions in a featureless market. Deliveries have been moving in a satisfactory way and quotations continue steady on the basis of 65c. and up, as to quantity, seller and terms of sale.

SAL SODA.—A quiet market has been in progress. Supplies are not excessive but sufficient to meet the current demand. Features of importance have been lacking and prices remain unchanged on the basis of 70c. and up f. o. b., less the usual discount terms. Sales of concentrated are reporetd on the basis of 1⅜c. and up, according to quantity, seller and terms of sale.

Acids.

ACETIC.—Contract deliveries during the past month, while not up to those of the previous month, have been sufficient to prevent any accumulation of stocks and values have ruled steady on the basis of 2½@2.35c., as to quantity, seller and terms of sale.

NITRIC.—The market presents no new feature. The undertone continues strong in sympathy with raw materials and prices have been firmly sustained on the basis of 4¼c. and up, as to strength, seller and quantity and terms of sale.

MURIATIC.—Consumers have been drawing rather freely on existing contracts to cover current requirements and the market has ruled steady with additional orders placed for May delivery on the basis of 1.10c. and up, as to quantity, seller and terms of sale.

OXALIC.—Prices have scored a material advance since our last report, owing to the placing of an order sufficient to absorb the bulk of available stock. Various rumors have been circulated as the cause for the advance. The one that has done service several times before is a scheme to reduce the use of coal by a preparation of salt, ashes and oxalic acid. Prices have ranged from 8@9c., with sales reported of 100 casks at 8@8½c. Toward the close offerings were exceedingly light with quotations firm on the basis of 8¼@8¾c., as to seller.

TARTARIC.—Makers report a continued steady demand both for prompt and forward requirements and the market has ruled steady with sales reported on the basis of 28¾@29¼c. for crystals and 29@29½c. for powdered, according to quantiyt, seller and terms of sale.

SULPHURIC.—A fair demand has prevailed for May-June delivery and additional sales have been reported both for export and home consumption. Values remain firm on the basis of 1c. and up for 66 degrees and $12 per. ton and up for bulk 50 degrees, as to quantity, seller and terms of sale.

Miscellaneous.

ACETATE OF LIME. — Additional sales have been reported both for foreign and domestic consumption and the bulk of production is being readily absorbed. Prices have ruled steady on the basis of 1.60@1.65c. for brown and 2.50@2.55c. for gray, according to quantity, seller and terms of sale.

ALUM.—Deliveries to the papermakers and to other consuming channels have been sufficient to prevent any accumulations and the market has ruled steady with prices sustained on the basis of 1.75@1.80c. for lump, 1.85@1.90c. for ground, and powdered at 3c. and upward, according to quantity, seller and terms of sale.

AQUA AMMONIA.—A fair demand has prevailed for moderate quantities for prompt delivery and the tone of the market has continued firm with sales reported on the basis of 4¾c. for drums, 5¾c. for carboys in car lots and the usual advance for less quantities, as to packing and terms of sale, for 26 degrees.

ARSENIC.—Quiet conditions continue to prevail in this market. The paris green makers, the glass makers and other large consumers are practically out of the market, as they have sufficient supplies to cover requirements for the present, and until these supplies show signs of exhaustion, there is small hope of business resuming active proportions. Prices may be quoted nominally at 7½@8c.

BLUE VITRIOL.—A quiet, steady market has been in progress with no special feature to note. Makers continue to quote car lots at 7½c., while second hands have been supplying smaller quantities at 7¾c. and up, according to quantity, seller and terms of sale.

BRIMSTONE.—Dealers report a fairly good consuming demand for moderate quantities, but there is no change in values and the market remains without new feature. Sales have been made on the basis of $22.12½ and up, as to quantity and point of delivery.

CARBONATE OF POTASH.—Recent heavy deliveries on outstanding contracts have absorbed the bulk of available supplies and offerings have been exceedingly light. The market may be called firm on the basis of 4@4½c. for 80-85 per cent. calcined, 4¾@5½c. for 96-98 per cent. calcined, and 4¾@5c. for 80-85 per cent. hydrated, as to quantity, seller and terms of sale.

CAUSTIC POTASH.—The market retains its stormy tendency and the demand, while not especially active, has been of fairly steady proportions at well maintained values. Orders have been placed on the basis of 5@5½c. for old and 5¾@6c. for new process, according to test, quantity and terms of sale.

CHLORATE OF POTASH.—Quiet conditions have prevailed throughout this market. Contract deliveries have been seasonably heavy and quotations have been well sustained on the basis of 9¼@9½c. for crystals and 9½@9¾c. for small parcels of powdered, according to quantity, seller and terms of sale. Car lots are quoted at 8¾c. for crystals and 9c. for powdered f. o. b., as to quantity and terms of sale.

CHLORATE OF SODA.—A small demand has prevailed for spot goods in addition to regular contract deliveries. Prices continue unchanged on the basis of 9¼c. and up for small parcels, as to quantity and seller, and car lots at 8½c. f. o. b. works,

COPPERAS.—Contract deliveries to the large consumers have been of good average volume, thus preventing any accumulation of stocks. Quotations are firm on the basis of 65c. for barrels, 60c. for bags and 55c. for bulk, with the usual advance for jobbing parcels.

CREAM OF TARTAR.—The active extent of the demand has kept the market in comparatively light supply, and the firm tendency of values is maintained. Sales have been made on the basis of 23¼@23¾c. for crystals and 23½@24c. for powdered, as to quantity, seller and terms of sale.

GLAUBER'S SALT.—The market retains a firm position with steady sales reported at full prices. The demand is well distributed and there is no accumulation of supplies. Sales for prompt and May delivery have been reported on the basis of 45@50c., as to seller, quantity and terms of sale.

NITRATE OF LEAD.—The firm tone noted in our previous reports still continues. Available supplies are scarce and offerings have been limited. Quotations are firmly sustained on the basis of 9¼@9½c., according to seller and terms of sale.

SAL AMMONIAC.—The market is without special feature and the demand continues chiefly of a jobbing character, but without influencing any appreciable relaxation of stability. Orders are placed on the basis of 6@6½c. for gray and grain, and 9¼c. for lump, as to grade, quantity and seller.

SALTPETER.—The market has continued on a well sustained basis, but there is nothing of noteworthy interest to report. The demand is chiefly

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for moderate quantities. Quotations have ruled steady on the basis of 4c. and up and refined at 4¾c. and up, according to quantity, seller and terms of sale. Arrival is held at 3.87½c.

SUGAR OF LEAD.—Contract deliveries during the past month have been of good average volume and available supplies have been kept at a low level. The market presents no new feature, aside from a steady demand for moderate quantities. Prices remain unchanged on the basis of 7¾c. and up for brown and 9⅝@9⅞c. for white crystals, as to quantity, seller and terms of sale.

(Special to Oil, Paint and Drug Reporter.)

Liverpool Chemical Market.

Liverpool, April 17, 1907.

While there is not much activity reported as regards new business in heavy chemicals, manufacturers are well sold ahead under contracts and are kept busy with deliveries against same.

Soda ash is moving off steadily at the usual varying prices, as to destination. For tierces, nearest values may be called about as follows:—Leblanc ash, 48 per cent., £4 12s. 6d.@£5 10s.; 58 per cent., £5@£6; ammonia ash, 48 per cent., £4 5s.@£4 10s.; 58 per cent., £4 10s.@£4 15s. per ton net cash. Bags, 5s. per ton under price for tierces.

Soda crystals are not active, but a fair trade passing at generally £3 7s. 6d. per ton less 5 per cent. for barrels, or 7s. less for bags; with special terms for a few favored markets.

Caustic soda firm and high strengths in small compass. We quote:—60 per cent., £8 15s.; 70 per cent., £9 15s.; 74 per cent., £10 5s.; 76 per cent., £10 10s. per ton net cash. Special quotations for export to the Continent and a few other favored export quarters.

Bleaching powder is unchanged at £4 15s.@£5 per ton net cash quoted for hardwood, as to market.

Chlorate of potash in fair demand at 3½d.@3¾d. per lb. net cash, as to quantity and market.

Bicarbonate of soda in fair request at £6 15s. per ton, less 2½ per cent. for the finest quality in one cwt. kegs; with usual allowances for larger packages; also special terms for certain export quarters.

Sulphate of ammonia quiet but steady at £12 2s. 6d. per ton, less 2½ per cent. for good gray 24-25 per cent. in double bags f. o. b. here.

Nitrate of soda in moderate demand on spot, while holders still quote £11 7s. 6d.@£11 10s. per ton for ordinary, up to £11 17s. 6d. per ton for refined, in double bags f. o. b. here, less 2½ per cent.

(Special to Oil, Paint and Drug Reporter.)

Oil Districts of Southern California.

THIRD AND FINAL MONOGRAPH IN UNITED STATES GEOLOGICAL SURVEY—THE SANTA CLARA VALLEY—SOUTHERN SULPHUR MOUNTAIN AND OTHER FIELDS.

Washington, April 26, 1907.

The third and final monograph in the U. S. Geological Survey's series of reports upon the oil districts of Southern California covers what is known as the Santa Clara Valley district, and has been compiled by George H. Eldridge. The first two papers of the series have already appeared in these columns. The paper presented below embraces a description of one of the most interesting fields of California, both from a scientific and commercial standpoint and embodies data to which the officers and operators of the different oil companies in the district have contributed much information of value which could not otherwise have been obtained. Following is an advance abstract of the monograph:—

The Santa Clara Valley of Southern California is a structural depression modified by erosion. The heads of the valley lie in the San Gabriel Range and in the mountains to the north, which connect this range with other portions of the Coast Range and with the Sierras. After a westerly course of seventy-five miles the stream which drains the valley enters the Pacific a little south of the town of Ventura. The valley proper is given over to agriculture, but in the mountains on either side are many important oil fields.

The mountains north of the valley form the water shed between it and the Central Valley of California and also present a barrier to the Mohave Desert, which lies in the angle between the Sierras and the more southerly ranges of the State. These mountains are excessively rugged and represent the convergence of several ranges, which to the northwest maintain a conspicuous individuality. Pine Mountain, which is 7,488 feet in altitude, is their culminating point. The area thus occupied forms a part of the Santa Barbara Forest Reserve, recently set aside by the United States Government. The greater portion of it is accessible only by trail and is almost wholly uninhabited.

OIL FIELDS NORTH OF THE SANTA CLARA.

The oil fields north of Santa Clara River involve an area having an east-west length of thirty-five miles and a width of seven to fifteen miles. For convenience of discussion, this area may be divided into the Ojai Valley, Sulphur Mountain, Silver Thread or Sisar Creek, Santa Paula Ridge, Sespe, Pole Canyon and Hopper-Piru fields.

OJAI VALLEY FIELDS.

The Ojai Valley fields comprise the region of the upper and lower valleys, lying between the Topatopa Range on the north and Sulphur Mountain on the south. Nordho, the only town within the district, lies about fifteen miles north of Ventura, with which it is connected by a spur track of the Southern Pacific Company, and twelve miles northwest of Santa Paula.

The oil wells in the Ojai fields comprise those of the Union Oil Company on the Pirie ranch, at the west end of Lion Hill; two in Lion Canyon, about one and one-half miles southeast of the Pirie wells; a couple drilled by Langdell, Newmark & Roan, near the summit on the north slope of Sulphur Mountain, and a group along the northeastern side of the Upper Ojai, sunk by the Widden-Double, Sobra Vista, and Santa Paula oil companies.

SOUTHERN SULPHUR MOUNTAIN FIELD.

The oil areas that have been developed along the southern base of Sulphur Mountain lie at the heads of Aliso, Wheeler, Salt Marsh and Adams Canyons, and along the short gulch heading against Adams Canyon from the Santa Paula Valley. All are a short distance south of the northern boundary of what once constituted the San Buenaventura Mission. The general elevation of these areas is about 1,000 feet, Sulphur Mountain rising abruptly above to heights between 2,500 and 2,750 feet. The canyons are of easy grade and the intervening ridges are comparatively low.

The line of the suspected fault along the south side of Sulphur Mountain is marked in the several canyons by many strong seepages of petroleum, and in proximity to the fracture, in the northward dipping or more severely crumpled strata of the Fernando formation, most if not all of the wells of this general field are drilled. Those yielding the lighter oil, however, may penetrate to minor sands in the Modelo, or they may be peculiar to the brown shale of uncertain though perhaps Modelo age. The heavier oil without doubt occurs in the Fernando formation.

The wells in the field under discussion have been drilled at the heads of Aliso, Wheeler, Salt Marsh and Adams canyons and along the bottom of a short gulch east of Adams Canyon. But little new development was under way at the time of the investigation, and it was difficult to obtain data relating to the occurrence of the petroleum. Furthermore, many of the wells were old and were abandoned, while the product of others was reduced to only one or two barrels a day. The initial flow of some of the wells appears to have been as high as 25 or even 50 barrels. The depth as a rule ranges between 150 and 500 feet, but here and there 1,800 or 2,000 feet is said to have been attained. An early mode of recovering the oil was by tunnels, many of which penetrate the shale of Sulphur Mountain. From these a small amount of oil still

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seeps, although several barrels a day have been obtained.

Two varieties of oil occur in this field—one black, with a gravity of 19 deg. to 30 deg. B.; the other green, with a gravity of 30 deg. to 32 deg. B. The lighter oil, as already stated, is believed to be associated with the shale doubtfully assigned to the Modelo formation. It occurs nearer the base of the mountain than the black and heavy oil. The comparatively shallow depth of certain of the wells yielding green oil and their location well up the slopes of Sulphur Mountain suggest the possibility that the productive beds outcrop in the base of the mountain. None of the strata, however, so far as the writer could learn, showed any indication of containing petroleum.

The duration of life of the wells varies. Two years seem to be the maximum for the larger yields, but beyond this time the product dwindles to one or two barrels a day, and there remains constant for an indefinite time. This constancy, coupled with the inexpensiveness of pumping, accounts for their still remaining in service. The earliest drilling reported in this field was done by Mr. Adams twenty-five years ago in Adams Canyon. This well and another in proximity, put down by the Union Oil Company, afforded a light oil, and a similar product was obtained by wells in Salt Marsh Canyon. Periodic attempts have been made to develop the source from which this supply was derived, but without success.

SILVER THREAD OR SISAR CREEK FIELD.

The Silver Thread field is developed on the high ground immediately north of Sisar Creek, near its confluence with Santa Paula Creek, directly opposite the productive territory east of the latter stream.

The oil wells of this district all lie immediately north of the Silver Thread fault, which separates the Modelo shale and the Sespe red beds. They pierce the red beds, and a few wells in their upper portions pass through the more southerly members of the older but overlying rusty beds that carry Eocene fossils. None of the wells is distant more than 200 or 300 feet from the plane of fracture, while one or two are especially close to it, appearing, indeed, to have been sunk in crushed rock of the Modelo formation; however, in view of the uncertainty as to the dip of the fault plane, it may be that they pass at slight depth from the fragmental Modelo into the more solid strata of the older formations north of the fault.

The maximum depth attained is a little over 1,000 feet. The wells are all small, twelve barrels per day being the largest individual yield at the present time. The gravity of the oil varies somewhat from well to well, but the average is approximately 19 deg. B. The color of the oil is green. The only flowing wells are those of the Ojai Company, which lie west of the others, with their collars at a considerably lower elevation; they are also very shallow and are, moreover, located directly in the line of seepage of the region.

FIELD SOUTH OF SANTA PAULA RIDGE.

The productive oil territory immediately east of Santa Paula Canyon lies at the foot of the steep southern face of San Cayetano Mountain, and is the eastward extension of the Ojai, Silver Thread and Sulphur Mountain districts.

The wells of this field are confined chiefly to the brown shale, and range in depth from a few hundred to nearly 2,000 feet. Sandy beds undoubtedly occur; but in the main the strata are blue, brown and black shale, with occasional harder layers, known to the drillers as "hard shells." The oil is found in the coarser sediments. The Empire wells, in the eastern part of the field, show traces of the Fernando sandstone and conglomerate, from which, doubtless, they draw a portion of their oil, the remainder coming from the underlying Modelo formation. Some of the wells of this field are reported to have started at 200 barrels or more, the yield after a short time falling off until it is now between five and twenty barrels. The oil is light, its gravity being 35 deg. B., and of greenish color, resembling in a measure that from the same formation in the Puente Hills.

The companies operating east of Santa Paula Creek are the O'Hara, the Chicago Crude, the Pacton Gold Bond, the Pure, the Hartford, the Cuniff and the Empire.

SESPE FIELDS.

The Sespe fields include that portion of the territory north of the Santa Clara Valley which lies adjacent to Sespe Creek in the lower eight or ten miles of its course, together with the area about Little Sespe, Fourfork, Tar and Bear creeks and Pine and Coldwater canyons, all in the Sespe drainage system.

The wells in the Sespe district may be grouped as follows—Those of the Union Consolidated Oil Company in Sespe Canyon, at the base of Sulphur Peak; those in the vicinity of Devilsgate, a narrow gorge of the Sespe two or three miles below the Union wells; the Ivers wells, still lower in the canyon; the Kentuck wells, also in Sespe Canyon, just above the mouth of Little Sespe Creek; the Happy Thought wells, on the south bank of Little Sespe Creek, near its mouth; the Foot-of-the-Hills wells, on Little Sespe Creek, a mile above its confluence with the main stream; the Fourfork wells, on an upper branch of Little Sespe Creek, two or three miles above the Foot-of-the-Hills wells, and the wells on Tar Creek.

POLE CANYON.

Pole Canyon, although but two miles from Sespe Creek, lies wholly beyond the area of disturbed rocks that are so well developed at the entrance to the gorge of the Sespe. Although no productive wells have yet been drilled in this territory, it is deemed advisable to include here a short discussion of its structure, as it connects two productive areas and may at some future time be found on careful prospecting to be itself an oil-producing region.

At the north end of the section, on the eastern flank of Hopper Mountain, the southern and western edge of an extensive outcrop of Modelo sandstone is seen. South of this outcrop is a narrow belt of Vaqueros shale which is locally crumpled into an assymmetric anticline. South of the Vaqueros area the Modelo formation reappears, turned past the vertical at the crest of the ridge east of Pole Canyon, but quickly regaining its southerly dip in the slopes below. At the lower edge of the outcrop there is some confusion in the succession of strata, and in the dips it is believed that a slight displacement has taken place in addition to an overthrow. The overthrow is best observed in the upper Modelo sandstone, which outcrops in a continuous half circle, the axis of the fold pitching about 45 deg. SE. In this sandstone also is well shown the principal syncline of the region, which may be designated the Oat Mountain syncline, its western extremity lying in that mountain. Except for sharp, anticlinal crumples near its northern and southern edges, this syncline is comparatively symmetrical, the outcropping stratum in the trough of the fold being the uppermost shale of the Modelo formation. Immediately south of the southern anticlinal crumple is a second fault, designated the Sulphur Mountain fault, its trend being N. 60 deg. W., the direction of its hade doubtful, though perhaps to the south, the downthrow to the south, and the maximum displacement probably more than 1,000 feet. This fracture is traceable diagonally across Sulphur Mountain to the bottom of the Santa Clara Valley; it is also in direct line with certain sharp crumples in Chaffee Canyon, south of the valley, to which, therefore, it may be structurally related. To the west the fault passes into the ridge running south from Oat Mountain, perhaps continuing to Sespe Canyon and merging with the San Cayetano fracture. Over this portion of its course, however, its identification is next to impossible, for the strata are but a succession of shales which may be either Vaqueros, Modelo, or both. These shales are of great thickness, and extend southward in unbroken outcrop to the Santa Clara Valley, only a narrow fringe of overlying Pliocene separating them from the bottom lands for a mile or two along their front. The shales display a number of minor folds, but their predominant dip is northward. Just before passing beneath the Pliocene, however, this seems to change to southward, more or less in conformity with that of the younger rocks. Across the Santa Clara Valley, but at a distance of nearly two miles, the probable upper members of the Sespe and lower members of the Vaqueros appear, but the intervening structure is unknown.

HOPPER-PIRU FIELDS.

The district discussed in this section embraces the territory contiguous to Hopper and Nigger canyons, the lower portion of Piru Creek, and its tributaries Modelo, Blanchard, Lime, and Reasoner canyons on the west and Santa Felicia and Holser canyons on the east. The topography, especially about Hopper Canyon, is very rugged, but considerable portions of the district are accessible over the roads which follow the canyons. Piru, at the mouth of Piru Creek, is the only town of importance in the district.

The oil wells of the Hopper-Piru district comprise the San Cayetano, Sunset, Fortuna, Nigger Canyon, Modelo Canyon, Piru Oil and Land Company, and Holser Canyon wells. All but the last two groups are situated west of Piru Creek.

The productive wells of the Piru Oil and Land Company are located in the valley of Piru Creek, about two miles northeast of Piru. At present two wells yield oil and one water. They penetrate conglomerate and sandstone, with some clay, which are believed from their fossils to be the Fernando formation. The general dip of the strata is from 45 degrees to 60 degrees or 70 degrees S. and the strike varies slightly on either side of east and west. The particular horizon in the Fernando is somewhat uncertain, by reason of the proximity of the wells to what appears to be a line of unconformity between this formation and the older Modelo beds. It is, however, undoubtedly well up in the Fernando, if the section across the hills in front of the wells and directly north of Camulos is to be taken as a criterion.

Less than half a mile south of Holser Canyon is one of the more prominent anticlines that have affected the Fernando formation east of Piru Creek. The continuation of this anticline to the west was not determined, but from its position and trend it may pass into the Modelo fold; on the other hand, like so many other folds in this region, it may spring from the system west of Piru Creek, but maintain an independent position east of the stream.

Two wells, the Ramona and New Camulos, are located a little south of the axis of this anticline, in tributaries of Holser Canyon, and north of the canyon, between half a mile and a mile north of the axis, is the Crown King. None of these wells has yet found oil. The rocks of Holser Canyon are conglomerate and sandstone, with local beds of argillaneous shale. Some of the sandstone shows the presence of a considerable amount of bitumen throughout its mass and it is probable that drilling operations are conducted here on this account.

OIL FIELDS SOUTH OF THE SANTA CLARA.

The oil fields south of the Santa Clara River involve an area having an east-west length of 29 miles and a width of from one-half mile to four miles. For convenience of discussion the territory is divided into four fields, which lie at varying intervals along the front of Oak Ridge and the Santa Susana Mountains, none being yet developed on the slopes of South Mountain. Enumerated from west to east they are the Bardsdale and the Torrey-Eureka-Tapo fields, on the north flank of Oak Ridge; the Pico field, comprising Pico, Dewitt, Towsley, Wiley, Rice, and East canyons, along the Santa Susana Mountains; and the Elsmere field, containing the Elsmere and Placerita wells, on the spurs of the San Gabriel Range.

The fields are developed along the axes of the Oak Ridge, Torrey, Eureka-Tapo, Pico, and Elsmere anticlines. The Placerita wells are quite independent of the others and are located on the northward-dipping schists of the San Gabriel Range. The formations involved are the Sespe (Eocene), Vaqueros (lower Miocene), and Fernando (large Pliocene). All of these are productive. In addition the schists of the San Gabriel Range afford some oil.

BARDSDALE FIELD.

The Bardsdale field, as here described, includes South Mountain and Oak Ridge as far east as the vicinity of Chaffee Canyon. As all of the proved oil territory in the field lies north of the crest of the range the detailed descriptions will deal largely with the northern slopes.

A single oil field has been developed in the South Mountain-Oak Ridge anticline. It lies opposite Bardsdale, extending along the axis of the fold from Grimes Canyon westward for a mile and a half. Two companies are operating—the Union Oil Company and the Bardsdale Crude Oil Company. The territory of the former is adjacent to Grimes Canyon; that of the latter is the westward extension of the field. The wells of these companies are sunk in the rusty-yellow conglomeratic sandstone described as the lowermost formation of this district and possibly of Eocene age. The wells are located along the highest portion of the anticline, the elevation of any particular bed diminishing in both directions along the axis of the fold. The records of the wells indicate that oil is found in the rusty standstone and in the underlying red and gray sandy beds at depths of 300 to 815 feet. The total depth of the wells varies from 500 to 1,000 feet. The oil is black and its gravity is reported as ranging from 23 degrees to 32 degrees B., the average being about 30 degrees. In one instance an oil of about 17 degrees B. was encountered. Occasionally water is pumped with the oil, but this is exceptional where a good landing stratum is obtained for the casing. Such a stratum is usually found among the red bands of the beds underlying the rusty sands. These, being generally more argillaneous than the gray bands, afford a more nearly water-tight bed. The wells of the Union Oil Company have been steady producers for a number of years, the decrease reported to the writer being but slight.

(Continued on page 52.)

Chemical Stoneware
FOR CHEMISTS and MANUFACTURERS
Please give specifications when asking for prices
ARTHUR J. WEEKS, Akron, Ohio

Henry Bower Chemical Manufacturing Company
Successor to
The Ammonia Company of Philadelphia,
Kalion Chemical Company, of Philadelphia, and
The Baltimore Chrome Works, of Baltimore, Md.
Main Office
Gray's Ferry Road and 29th St., PHILADELPHIA
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Aqua Ammonia — Of all Strengths and of Absolute Purity
Anhydrous Ammonia — Pure, dry gas. Stocks carried at all principal points of distribution
Sulphate of Ammonia — Guaranteed 25%
Prussiate of Potash
Bichromate of Potash
Bichromate of Soda
Bichromate of Soda — "Scotch" Crystal
Prussiate of Soda
Bichloride of Tin — 50° and 60°, Always neutral
Tetrachloride of Tin — (Solid) 33% Tin
Animal Char — For bleaching and deodorizing
"KALION" and "BALTIMORE" BRANDS
Sulphide of Sodium

Pure Alkali.
Manufactured by the Ammonia Process.
This Alkali contains 58 per cent. of Alkali or nearly 99 per cent. of Carbonate of Soda. It is the most economical form of soda for manufacturers of Soap, Glass, Paper, Wood Pulp and Colors and for Printers and Bleachers.
SOLVAY PROCESS CO.,
Syracuse, New York.
Adapted for Window Glass Makers, testing 48 per cent.
WING & EVANS, Inc., Sole Agents for the United States, 22 William Street, New York

FERTILIZER MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 33.

Saturday Noon, April 27, 1907.

In the animal ammoniates a general quiet pervaded the market owing to the lack of demand from the South where the season is practically at an end. Prices of blood and tankage weakened with offerings 5c. to 10c. per unit lower. Phosphates remained firm in response to good inquiries and light stocks as well as an active call for supplies on outstanding contracts. Potashes were stationary and shipments on contracts covered fair quantities. Pyrites stiffened in response to an active demand and light offerings. Recent sales embraced lump ore at ½c. per unit advance, terms ex ship.

Ammoniates.

SULPHATE OF AMMONIA.—Fair sales of spot parcels of 100 tons and upward of foreign at $3.07½@3.10 per 100 lbs. Prices closed firm for foreign and domestic on spot at $3.07½@3.10, and for future delivery on the basis of $3.07½ per 100 pounds, according to time of shipment.

FISH SCRAP.—The menhaden fishing fleet has not commenced fishing owing to the recent storms off the coast. We hear of no contract sales of new season's menhaden machine dried scrap, but negotiations are pending on the basis of about $2.30@2.35 and 10c. per unit, f. o. b. fish works.

TANKAGE.—The market weakened, and prices were reduced, owing to the absence of demand from all points, particularly the South, where the season is practically closed. Quotations closed weak for 9 and 20 per cent. crushed tankage at $2.55 and 10c.; 11 and 15 per cent. at $2.65 and 10c. per unit; 6½ and 25 per cent., at $20 per ton, all f. o. b. Chicago.

GARBAGE TANKAGE. — Business continued to be confined to deliveries on old outstanding contracts, while new business was held in check, owing to the absence of offerings. Quotations closed unchanged on the basis of $10@11 per ton, according to point of shipment and terms of sale.

DRIED BLOOD.—Prices weakened and declined, owing to a general absence of buyers, particularly from the South, where the season has come to a close. Prices closed firm on the basis of $2.65@2.70 per unit for parcels of high grade, f. o. b. Chicago. Parcels 12 and 13 per cent., f. o. b. New York, closed at $2.70@2.75 per unit.

NITRATE OF SODA.—Prices were firm in sympathy with favorable reports from primary points, and a good demand for parcels in all positions. Spot parcels closed on the basis of $2.70@2.75 per 100 pounds for 95 grade, but were nominal owing to no first hand lots being available, and futures at $2.45@2.42½. Ninety-six grade was quoted at 2½@5c. per 100 pounds higher.

PYRITES.—Prices of lump ore were raised ½c. per unit, and sales of sizable lots were effected on the basis of 13½c. ex ship. Holders are now asking 14c. ex ship. Offerings were light, which still serves to restrict the booking of new orders. Sales covered contracts deliveries extending far into 1914. Shipments on contracts continued fair. Quotations closed firm for lump ore, washed at 12@12½c., averaging 48 and 50 per cent. of sulphur, and Spanish smalls, washed ore, at 8½@9c. per unit ex ship. Domestic remained stationary at 9@10½c. for fines, averaging 45 per cent. of sulphur, and 11@11½c. for furnace size, averaging 45 per cent. of sulphur per unit, f. o. b. shipping port.

Phosphates.

ACID.—Deliveries on contracts were fairly good, and the volume of new business booked was satisfactory, considering the time of the year. Quotations closed firm on the basis of 60@67½c. per 100 lbs., according to point of shipment.

BONES. — Nothing of interest occurred, and business throughout the week was confined to small lots. Several car lots were booked at a shade below current prices for ground steamed bone at $19 per ton and ground at $17 per ton. Quotations for steamed ground closed steady on the basis of $19 and up per ton, 3 per cent. ammonia and 50 per cent. bone phosphate, according to quality, terms of sale, also point of shipment. Bone meal remained steady, with offerings light and steamed bone held at $17.50 per ton for 3 and 50 per cent. f. o. b. Chicago.

PHOSPHATE ROCK.—The demand continued brisk, and sales covered sizable lots for export and for home consumption, including 75 per cent. Tennessee rock for delivery over 1907 at $6. Additional sales were booked covering contracts for 1907-1908 deliveries at $6 for 75 per cent. Parcels of hot-air dried Charleston rock closed firm at $7 per ton f. o. b. Ashley River, but in the absence of offerings sales were small. The comparative exports of crude phosphate from the port of Charleston from September 1, 1906, to April 24, 1907, were as follows:—

Shipments to—	1905—1906 Crude.	1905—1906 Acid.	1904—1905 Crude.	1904—1905 Acid.
Baltimore	7,000	....	4,500	....
Barren Isl., N. Y.	....	....	1,457	....
New York	....	....	....	....
Norfolk	4,800	....	....	....
Wilmington, N. C.	3,004	....	....	....
Totals	14,804	....	5,957	....

Potashes.

MURIATE.—Prices were stationary for spot parcels of muriate of potash testing 80 per cent. at $1.95@1.98, and futures at $1.90@1.93 per 100 lbs., according to point of shipment. Manure salt, 20 per cent. actual potash, remained stationary at $14.75@15.40 per ton of 2,240 lbs., and double manure salt, 48 per cent., at $1.16@1.19 per 100 lbs., according to point of shipment.

SULPHATE.—Quotations were firm on the basis testing minimum 90 per cent., $2.18@2.22½ per 100 lbs., according to point of shipment.

KAINIT.—Prices remained on the basis of supplies in bags at $9.50, and in bulk at $8.50 for shipment to the South or North, invoice weight per ton of 2,240 lbs.

For fertilizer reports from Chicago and Charleston, see index on page 21.

Oil Districts of Southern Calfornia.

(Continued from page 51.)

TORREY-EUREKA-TAPO FIELDS.

The district discussed in the following paragraph embraces Oak Ridge, east of Chaffee Canyon, and the western portion of the Santa Susana Mountains as far east as the head of Tapo Canyon. Within it are three productive areas—those of Torrey, Eureka, and Tapo canyons.

The productive territory of the Torrey anticline, forming what is known as the Torrey field, embraces an area of about one square mile, the length being twice the breadth and lying with the strike of the rocks, which gradually bend from N. 65 degrees W., the direction prevailing on the side of the flexure, to northwest, north northwest, and north as the strata round its end. The axis of the anticline passes close to the northern edge of the field, the wells, with a few exceptions, having been drilled in the strata of gentler dip, 30 degrees to 40 degrees, south of the axis. In all there are between 50 and 60 wells, aligned in seven or eight concentric arcs, in accordance with the curves assumed by the outcropping strata.

The wells of Eureka Canyon are located in its lower reaches, most of them being grouped at the sharp turn half a mile above its mouth. The geology of the immediate region is somewhat doubtful, but if the structure is that of a highly compressed compound fold the locus of the wells is not far from its anticlinal axis; moreover, the developed territory is in the vicinity of a prominent curve in the stratification planes, the axis having been pushed somewhat northward between Eureka and Torrey canyons.

Wells have been drilled in the main fork of Tapo Canyon and also in each branch of a westerly tributary. Those at present producing lie along the east fork of this tributary. They are four in number, although from their designation, Nos. 12 to 15 inclusive, it is to be inferred that several others have been in existence in earlier days. Indeed, one or two of these old wells still contain a slight amount of oil. The producing wells are sunk in northward-dipping sandstone and shale a mile north of the axis of the Tapo anticline. They yield at present from 5 to 40 barrels of oil per day. The gravity is 20 degrees to 24 degrees B., the 20-degree oil being produced by the well highest up in the canyon and lowest as to the strata penetrated.

PICO FIELDS.

The Pico district, the western part of what is popularly known as the "Newhall district," comprises the region of the Santa Susana Mountains from Tapo Canyon to Fernando Pass. The Newhall district is divided into the Pico and Elsmere districts for the purpose of this discussion, the geologic condition in the two subdistricts being quite different.

The productive fields of the Santa Susana Mountains, enumerated from west to east, include those of Pico, Dewitt, Towsley, Wiley, Rice and East canyons, all on the northern slope. With the exception of those in Dewitt Canyon, which are apparently on a secondary crumple, all are ranged along the main Pico anticline, some to the north, others to the south of the axis. The anticline apparently maintains a uniform elevation except at the extremeties, where it pitches east and west, respectively. This uniformity of level may account for the fact that the anticline has been found productive for so large a proportion of its length. This is in marked contrast to the development along the Oak Ridge anticline, the axis of which is decidedly undulating and which has been proved productive only at its point of maximum elevation opposite the town of Bardsdale. Doubtless many other factors enter into the explanation of the relative productiveness of the two anticlines, but the conditions above mentioned are to be considered in any attempt to account for it.

ELSMERE FIELD.

The Elsmere field comprises that portion of the Newhall district lying east of Newhall Creek and extending as far east as Los Pinetos Canyon. The productive territory is confined to the northwest end of the San Gabriel range, which terminates at Fernando Pass and Newhall Creek.

The Elsmere oil field is developed in the broad sweep of the strata about the west end of the Elsmere anticline. The companies operating, named in order from south to north, include the Enterprise, Zenith, Eureka, Crude, Pearl, Santa Ana and Pacific Coast. The Pacific Coast wells are confined chiefly to the slopes and bottom of Elsmere Canyon, although a few are ranged along the crest and western face of Elsmere Ridge. The Santa Ana Company has three wells high up on the north point of this ridge, while the wells of the other companies are ranged along a tributary of Newhall Creek, west of Elsmere Ridge, in proximity to the Los Angeles wagon road. Roughly, the wells are ranged concentrically about the anticline, the Enterprise, Pearl and Zenith lying farthest out and to the west, the wells of Elsmere Ridge in a circle somewhat within these, and those of the Pacific Coast Oil Company in Elsmere Canyon nearest the heart of the fold. In addition to the above, Netzleton & Kellerman have a group of three wells a little farther north and the New Century and Freeman & Nelson oil companies a few wells in Placerita Canyon, five miles east of Newhall. The well of the California Oil Company, high up on the slopes of the San Gabriel range, is said to penetrate a few feet of still older beds of the Vaqueros and then to pass into granite.

Latest Appraisers' Decisions.

Olive Oil.

Protest filed by O. G. Hempstead & Son, Philadelphia, was directed against the assessment of duty at the rate of 40 cents per gallon on three barrels of olive oil under the provisions of paragraph 40, tariff act of 1897. Protestants claimed said oil was for "manufacturing or mechanical purposes, fit only for such use" and, therefore, was entitled to entry free of duty under paragraph 626; also that the cost of the oil if estimated at the customary weight of 7.56 pounds per gallon is less than 60 cents, but that the appraiser resorted to an unusual method by taking 7.63 pounds per gallon, which forced the cost slightly above 60 cents per gallon. On appeal to reappraisement before a single general appraiser the value of the oil was found to be 90 lire per 100 kilos, which is less than 60 cents per gallon. But to entitle protestants to succeed in their claim for free entry under paragraph 626 it was incumbent upon them to show that the oil was "for manufacturing or mechanical purposes, fit only for such use and valued at not more than 60 cents per gallon." The evidence offered by the importers was the statement of the examiner of the oil in question, which was a corroboration of his return on the invoice, and there was nothing in the record supporting the contention of the importers that the oil was "for manufacturing or mechanical purposes, fit only for such use." The presumption of correctness which follows the collector's return not having been overcome, the protest was overruled and the decision of the collector affirmed.

Coal Tar Colors.

Merchandise imported by H. A. Metz & Co. was assessed with duty at the rate of 30 per cent. ad valorem under paragraph 15 of the tariff act of 1897 as a coal tar color or dye. It was claimed to be dutiable under paragraph 15 at 20 per cent. ad valorem as a coal tar preparation, not a color or dye. The protest was overruled and the decision of the collector affirmed in accordance with G. A. 6566 (T. D. 28935).

Bids Opened for Isthmian Supplies.

Bids were received on April 19 by the purchasing officer of the Isthmian Canal Commission, Washington, D. C., for material and supplies as follows:—

Bidder 81. National Powder Company, New York City.

94. Rockland Powder Company, York, Pa.

126. E. I. du Pont de Memours Company, New York City.

Class 2.—817,000 pounds 45 per cent. nitroglycerine and 350,000 pounds 60 per cent. nitroglycerine. Bidder 81, $139,162.50, 12 days; 94, $95,375 for 350,000 pounds of each, 95 days; 126, $127,376.50, 67 days.

FERTILIZER MANUFACTURERS
who use 100 lbs. to 200 lbs. of
Nitrate of Soda
per ton will find a ready market for their product. Farmers everywhere are asking for it. Our extensive advertising has put us in touch with thousands. We want you to share the benefits.
Remember, Nitrate of Soda is the standard ammoniate—and the cheapest available.
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203 Dwight Building, Kansas City, Mo.
Atlanta, Ga., Century Building, Room 1017
COMMISSION MERCHANTS AND BROKERS
Fertilizer Materials
Representatives of Kaliwerke Sollstedt, Germany, for the distribution of their Potash Salts.

SULPHATE OF AMMONIA
AMERICAN COAL PRODUCTS CO., Sole Agents for the Largest Coke-Oven Plants Located in Various Sections of the United States
Address DEPARTMENT SALES, 17 Battery Place, New York

THE NEW ENGLAND GAS AND COKE CO.
MANUFACTURERS OF
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Rail and Vessel Shipments.
Works at Everett, Mass. Shawmut Bank Building, Boston, Mass.

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ALL FERTILIZER CHEMICALS AND MATERIALS
BONE BLACK AND FULLERS EARTH
FOR SUGAR AND OIL REFINING; ALSO COLOR AND CHEMICAL PURPOSES

HAMILTON H. SALMON & CO.
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IMPORTERS, EXPORTERS and COMMISSION MERCHANTS.
Fertilizer Materials and Chemicals for Manufacturing Purposes of all descriptions. Specialties: Muriate of Potash, Double Manure Salt, Sulphate of Potash, Kainit, Sylvinit, and other products of the Stassfurt Mines.
CORRESPONDENCE SOLICITED.
Samples and Information Upon Application.

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BONE BLACK FOR OIL REFINERIES A SPECIALTY
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GLUE, GREASE, &c., &c
Asphaltum Substitute for Japan and Varnish Manufacturers.....
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The Mathieson Alkali Works

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Manufacturers of Eagle and Thistle Brands of

Pure Alkali, 58%
Soda Ash, 48%
Caustic Soda, 70%, 72%, 74%, and 76%

THE CASTNER ELECTROLYTIC ALKALI CO.

NIAGARA FALLS, N. Y.

Manufacturers of

Bleaching Powder and Caustic Soda 99% Pure

Quotations promptly furnished for Spot or Forward Delivery

ARNOLD, HOFFMAN & CO., Inc.

SOLE AGENTS,

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BOSTON COACH OIL

A superior oil for use on carriages, cabs and buggies. Is superior to castor oil and more economical. Has none of the objectionable features of castor oil; will not gum or corrode. Has splendid lasting qualities.

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MICA AXLE GREASE

Will leave no gum or paste on the spindles where it is used. Made of the best Grease Stock and Ground Mica; the latter fills up the pores and crevices of the axle and forms a hard, bright, smooth coating, thus reducing friction to a minimum. Put up in all sized packages from one pound to barrels. Give a trial order and be convinced of its merits.

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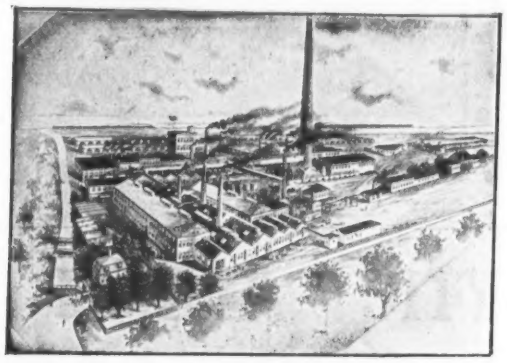

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OIL VITRIOL	AQUA AMMONIA	ALUM
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AQUA FORTIS	SULPHATE SODA	CHLORIDE ALUMINA
ACETIC ACID	BISULPHATE SODA	WOOL CARBONIZERS
TIN CRYSTALS	BISULPHITE SODA	NITRATE IRON
MURIATES OF TIN	HYPOSULPHITE SODA	NITRATE COPPER
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Aniline Colors, Tannic Acid, Sugar of Lead, Tartar Emetic, Soluble Antimony, Gambier, Gum Tragacanth, Nut Gall Extract, Olive Oil, Acetine.

DYE MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 33.

Saturday Noon, April 27, 1907.

The quiet appearance of the general market last week is still more or less in evidence and there are but few new developments to report. Of principal concern is the firm stand holders of albumen have taken. Prices for this article have been advanced 2 cents and dealers now quote 59c. for even the lowest grades of egg. Prussiate of soda eased off slightly and is now quoted at 10½@11c. Higher prices are available in some quarters in zinc dust. Tin crystals continue firm but unchanged. Indigo reflects a quiet but firm undertone. The new crop is reported to be progressing favorably and the yield will not be affected by the recent heavy rains. Turmeric is devoid of interest on spot, while the market abroad presents a firm tone contrary to the unimportant demand. Blue Aleppo galls are without new feature and the market closed slightly easier, but without quotable change. Gambier lapsed into a rather uninteresting position and a slight price concession was thought to be possible. Sumac was without new development and prices for all tests were well sustained. Antimony salts continue easy, but unchanged in price.

ALBUMEN.—In consequence of the extreme scarcity on spot and unfavorable reports from producing districts prices were advanced to the level of 59c. This price was reported paid for even the lowest grade goods. Supplies of duck albumen are not being offered very freely, as producers are behind on their contracts. For the higher grade of albumen up to 75c. is asked. Blood continues at 20@27c., according to quality and seller.

ANILINE OIL AND SALT.—Nothing of particular interest has developed in this market, and prices remain without quotable change.

ANTIMONY SALT.—There continues to be an easier feeling in this market and while no quotable change is reported it is not unlikely that a firm bid of 27c. would not be turned down.

COCHINEAL.—There is no improvement to note in the demand for this commodity, which remains dull and uninteresting. Contrary to the light demand no price concessions are thought possible, as holders are firm in their views regarding values. Present values are 44@47c. for Teneriffe silver, 48½@53c. for black and 43@46c. for gray black.

CUTCH.—Quiet conditions prevail in this market, which remains without new feature. Present quotations are 4¾@7c. for mat, 5@7c. for boxes and 8@10c. for slabs.

DEXTRINE.—A quiet but generally firm market prevails for all descriptions and quotations remain as previously reported.

GAMBIER.—Buying interest is still lightly manifested, but some inquiry is in evidence at terms to which holders do not seem disposed to yield. This is especially so as regards the shipment price, which buyers do not consider favorable at $3.80. The Hudson is next due with about 2.25 tons, of which a small quantity is available at a slight concession. The May and June shipment price is unchanged.

HYPO OF SODA.—Trade during the week has been quiet with business confined chiefly to deliveries on contract. Present quotations are $1.50@1.65 for the American refined in barrels and $1.55@1.65 in kegs.

INDIGO.—The local conditions continue quiet, but the market is firm. Favorable reports were received on the new crop prospects. While hard rains are said to have injured the sowings it is not believed to be as bad as first reported. Values for all varieties remain steady as listed.

NUTGALLS.—A continued firm market is reported for this commodity contrary to the light demand. Present quotations are 23@25c. for blue Aleppo and 16½@17c. for Chinese.

PRUSSIATE OF SODA.—Values during the week underwent a fractional decline and holders now quote 10½@11c., as to quantity. The lower level was occasioned by the backward demand.

SUMAC.—Quiet conditions prevail, but values are without change. Some inquiry is reported, but buyers are holding off, still it is not probable that any price concessions will be made. Up to $95 was said to have been paid for the high test goods. The market abroad continues firm.

TARTAR EMETIC.—Nothing of interest has developed in this market. Trade was chiefly confined to jobbing quantities with round lots wholly neglected. Present values are 26@27½c., as to seller.

TIN CRYSTALS.—There is no change to be noted in the spot situation and while the market for the tin continues easier values for the crystals are well sustained. A fair jobbing movement is reported on the basis of 25@30c.

TURMERIC.—The local situation is without change and prices continue firm. Advices from abroad note but little activity, however, of sufficient proportions to sustain values. Supplies continue small.

ZINC DUST.—There is no change to report in the spot situation. A fair inquiry with favorable results is reported and dealers seem hopeful of better prices. On the basis of late sales 6@6½c. may be said to represent the general market.

(Special to Oil, Paint and Drug Reporter.)

Modifications in Free Alcohol Regulations.

FURTHER CONCESSIONS TO WHOLESALE DRUG TRADE FOR SALE OF DENATURED SPIRITS TO RETAILERS.

Washington, April 26, 1907.

In view of the difficulty experienced by many retail dealers in procuring small quantities of denatured alcohol in original stamped packages, the Bureau on the 11th ultimo issued a circular authorizing wholesale dealers who are also retail dealers to sell to qualified retail dealers denatured alcohol in unstamped packages containing less than five gallons each. It was provided that alcohol to be so sold must be drawn from original stamped packages to be set aside for that purpose and each package or container to which said alcohol should be transferred must have affixed thereto a label duly signed by the dealer selling the same. This label must show the name and district of the denaturer, the serial number of the original package from which such alcohol was withdrawn and the quantity in wine gallons contained in such new package.

This modification was received with very general satisfaction throughout the trade but in practice it has been found that the requirement that the label shall be "duly signed by the dealer selling the same" has caused considerable annoyance as local collectors of internal revenue have construed it to mean that the head of the house, or in the case of a corporation, the secretary thereof, must sign the label and can not delegate the work to any one else. Representations were accordingly made to the commissioner urging the modification of this requirement and it has therefore been decided that the signature referred to may be imprinted on the label with a rubber stamp to be verified by the initials of the employee duly authorized for the purpose. The text of the commissioner's ruling is as follows:—

"Referring to office letter addressed to you on the 20th ultimo, in reference to labels to be affixed by wholesale dealers to unstamped packages containing denatured alcohol, under the provisions of Circular No. 694, you are informed that a rubber stamp may be used in affixing the name of the wholesale dealer preparing such packages, provided the name so affixed is verified by the initials of the person authorized to use such stamp."

SURETIES ON BONDS.

Numerous provisions of the free alcohol regulations require producers, dealers and manufacturers to give bonds to indemnify the government in the case of the fraudulent use or illicit recovery of spirits. On this account considerable anxiety has been caused by the recent ruling of a Western collector of internal revenue that only the bonds of corporate surety companies will be accepted. Such a ruling, if enforced, would operate as a direct tax upon all parties handling or consuming denatured alcohol and required to give bonds, as they would be obliged to pay the relatively large fees which surety companies exact and could not give bonds with individual sureties, which in many cases could be procured without cost. The commissioner, however, declined to support the collector in this requirement inasmuch as the law on the subject is very clear and does not discriminate in favor of corporate surety companies. Individual sureties may be offered in all cases provided their financial standing is such as to satisfy the internal revenue officials that the interests of the government will be fully protected. In a letter to the collector who made the original ruling in this matter the commissioner outlines the policy of the Bureau and cites the law governing it. He says in part:—

"Referring to your letter of the 12th ultimo and previous correspondence had with you relative to the application of ——— to execute a bond with personal sureties, it is noted that you state you have adopted a uniform rule requiring the bonds of corporate surety companies from all manufacturers * * * located within your district.

"This office recognizes the fact that it may be more advantageous and convenient to collectors to have taxpayers execute bonds with guarantee corporations as surety thereon, and it has been noted that a number of collectors have been disposed to exact bonds of this character, especially from the class referred to by you.

"In order that you may be fully apprised of the law governing this matter, your attention is called to the act of August 13, 1894 (28 Stat., 279). See page 350 of the Compilation of Internal Revenue Laws, 1900. The first section of this act authorizes the acceptance of certain corporations as sureties on bonds required or permitted to be given with one surety or two or more sureties when executed or guaranteed solely by a corporation incorporated under the laws of the United States, etc., provided that such corporation be approved by the heads of departments. The last paragraph of said section contains the following proviso:—

"'But no officer or person having the approval of any bond shall exact that it shall be furnished by a guarantee company or by any particular guarantee company.'

"Under the provisions of this statute collectors are absolutely forbidden to exact from principals when executing bonds that they furnish a guarantee company or a surety company as surety thereon.

"Section 3260, 3336 and 3387 of the Revised Statutes, and section 5 of the act of August 2, 1886, would appear to confer ample powers upon collectors to enable them to protect the interests of the government."

FORMULA FOR VARNISHES MADE FROM SOLUBLE COTTON.

The commissioner has approved a new formula for a special denaturant for use in the manufacture of pastes and varnishes from soluble cotton. In a letter to the collector of internal revenue for the Boston, Mass., district, the commissioner says:—

"You will please inform the ———, of your

district, that, in accordance with section 80 of regulations No. 30, the following formula has been authorized as a special denaturant for use in the manufacture of pastes and varnishes from soluble cotton: To 100 gallons of alcohol shall be added 2 gallons approved wood alcohol and 2 gallons benzol.

"The wood alcohol shall be held subject to the same specifications as are imposed upon the methyl alcohol used in completely denatured alcohol, which are set forth in Circular No. 680.

"The benzol shall be subject to the following specifications:—

"Solubility in water.—When 10 c. c. of benzol are shaken with an equal volume of water in a glass-stoppered cylinder divided into tenths of a cubic centimeter, and allowed to stand five minutes to separate, the upper layer of liquid must measure not less than 9.5 c. c.

"Boiling point.—When 100 c. c. of benzol are subjected to distillation in the same manner as prescribed for the determination of the boiling point of wood alcohol in Circular No. 680, not more than 1 c. c. should go over at 77 degrees C., and not less than 90 c. c. at 100 degrees C."

(Special to Oil, Paint and Drug Reporter.)

Drug Law to Conform to Pharmacopœia Changes.

PROFESSOR REMINGTON AND DR. WILEY CONFER ON PHARMACOPOEIA MATTERS IN WASHINGTON— INTERESTING TALK BY THE LATTER.

Washington, April 26, 1907.

Dr. Harvey W. Wiley, chief of the Bureau of Chemistry of the Department of Agriculture and chairman of the Pure Food and Drug Commission, after a conference with Professor Joseph P. Remington, chairman of the Revision Committee of the United States Pharmacopoeia, has indicated his entire willingness to accept all the changes that have recently been made in the Pharmacopoeia. Professor Remington came to Washington last week and laid before Dr. Wiley a draft of all the corrections so that their scope might be fully understood by the Pure Food and Drug Commission. Dr. Wiley examined the draft with much care, but did not hesitate to express his entire willingness to be guided by the Pharmacopoeia as modified thereby.

In discussing the changes Dr. Wiley said to the Reporter's correspondent:—

"To my mind all the so-called corrections are rational and perfectly proper. The great majority of them are merely verbal and are of no special importance. The others, however, represent concessions from theory to practice, if I may use the expression; in other words, they recognize the fact that it is practically impossible to produce articles of absolute purity, or which meet theoretical conditions without the slightest atom of variation. Take the matter of distilled water, for example; it is a practical impossibility to produce it even for laboratory work without a vestige of impurities, and of course, when you extend the principle to the thousand and one chemicals which have to be manufactured commercially on a large scale, you meet even greater difficulties. A product to be 'chemically' pure need only be pure enough for chemical purposes, and does not require to be absolutely without the slightest atom of impurity. If such concession were not made the cost of chemicals and drugs would be enormously increased even in those cases where manufacturers, by taking the most extraordinary precautions, could comply with the letter of the standards.

"So far as the Pure Food and Drug Commission is concerned, it should be understood that what is satisfactory to the committee having charge of the Pharmacopœia is satisfactory to us. Section 7 of the pure food and drug law provides that a drug shall be deemed to be adulterated 'if when sold under or by a name recognized in the United States Pharmacopœia or National Formulary it differs from the standard of strength, quality or purity as determined by the test laid down in the United States Pharmacopœia or National Formulary official at the time of investigation: Provided, That no drug defined in the United States Pharmacopœia or National Formulary shall be deemed to be adulterated under this provision if the standard of strength, quality or purity be plainly stated upon the bottle, box or other container thereof, although the standard may differ from that determined by the test laid down in the United States Pharmacopœia or National Formulary.'

"It will be noted that the law states specifically that the Pharmacopœia 'official at the time of the investigation' shall be the authority as to strength, quality or purity; hence, no matter what change or corrections may be made in the Pharmacopœia by the proper authorities the government is bound by the modified standards, provided, as above stated, that products varying from such standards may be freely sold if the variation is plainly indicated on the bottle, box or other container thereof."

It will be observed that under Dr. Wiley's construction of the law the changes that may be made in the Pharmacopoeia from time to time will go into force automatically so far as the execution of the national pure food and drug law by the Department of Agriculture is concerned.

In this connection much interest has been aroused here in the reports with regard to the failure of the appraiser at the port of New York to promptly modify his practice in the matter of passing crude drugs to conform to the changes made by the Revision Committee in the Pharmacopoeia. The Treasury Department has no knowledge as to whether the appraising officers are following the corrected standards or those formerly in force, and, as stated editorially in the Reporter last week, the Secretary of the Treasury has not felt called upon to advise the collector as to his duties in the premises. The customs laws and regulations, like the national pure food law and regulations thereunder, contemplate the employment by appraisers of the standards in force at the time the goods arrive. The government recognizes the Pharmacopoeia as the highest authority and it therefore accepts without question not only the decennial revision but any other modifications that may be made from time to time by the regularly constituted Revision Committee.

Notwithstanding the fact that the department has thus far declined to take any action with regard to the enforcement of the corrected standards, it is probable that if an importer whose goods have been denied admission, although conforming to the new requirements, should bring his case to the attention of the authorities here, the appraiser would be promptly instructed to recognize all official corrections and to govern himself accordingly.

Bids for Naval Supplies Received.

Bids were received at the bureau of Supplies and Accounts, Navy Department, on April 23, for material and supplies for the navy yards, as follows:—

Bidder 4. Robert H. Adams, 100 William street, New York City.
19. Berry Bros., 262 Pearl street, New York City.
31. E. Calman, 100 William street, New York City.
64. M. Fiegel & Bro., 147 Wooster street, New York City.
66. Fiske Bros. Refining Co., 15 Old Slip, New York City.
74. John Greig, 78 Broad street, New York City.
78. Charles A. Gillingham, 1648 South Twelfth street, Philadelphia, Pa.
82. Glidden Varnish Co., Cleveland, Ohio.
90. Hanson Bros. & Co., Thirty-fifth and Grey's Ferry road, Philadelphia, Pa.
119. John Lucas & Co., 323 Race street, Philadelphia, Pa.
121. Mohler & Schuman Co., Marcy and Flushing avenues, Brooklyn, N. Y.
124. John W. Masury & Son, Box 1012, New York City.
125. Murphy Varnish Co., Newark, N. J.
166. R. P. Rowe, 100 William street, New York City.
177. Raritan Paint Co., 10 Wall street, New York City.
185. Standard Oil Co. of New York, 26 Broadway, New York City.
192. Shoemaker & Busch, 511 Arch street, Philadelphia, Pa.
201. Sherwin-Williams Co., 104 Canal street, Cleveland, O.
209. Toch Bros., 320 Fifth avenue, New York City.
217. Union Petroleum Co., 135 South Second street, Philadelphia, Pa.
222. Vacuum Oil Co., 29 Broadway, New York City.

Class 185—New York, 10,000 lbs. metallic brown.—Bidder 90, $225; 119, $230; 177, $221; 192, $248.

Class 186—New York, 3,000 gals. boiled linseed oil.—Bidder 166, $1,410; 201, $1,560.

Class 187—New York, 8,000 gals. raw linseed oil.—Bidder 4, $3,580; 66, $3,541.30; 166, $3,530; 201, $3,760.

Class 188—New York, 10,000 gals. mineral oil.—Bidder 66, $1,975; 185, $1,850.

Class 189—New York, 1,000 gals. paraffine dynamo oil.—Bidder 66, $250; 74, $178.50; 217, $188.75; 222, $500.

Class 190—New York, 10,000 gals. spirits turpentine.—Bidder 66, $7,748; 185, $7,497.

Class 191—New York, 3,500 gals. interior varnish.—Bidder 19, $8,050; 31, $8,900; 78, $4,130; 82, $4,016.25; 119, $5,600; 121, $4,809; 124, $4,690; 125, $5,775; 177, $4,375.50; 201, $4,847.50; 209, $7,000.

Class 192—New York, 2,000 gals. spar varnish.—Bidder 19, $3,800; 31, $2,480; 78, $4,660; 82, $2,300; 119, $3,800; 121, $2,900; 124, $3,000; 125, $4,200; 177, $2,560; 201, $4,170; 209, $4,000.

Class 193—New York, 1,000 gals. glycerine.—Bidder 64, $1,409; 66, $1,443; 74, $1,392; 86, $1,396.

Bids Received at Bureau of Engraving.

Supplies:—Bids were received at the Bureau of Engraving and Printing, Washington, D. C., on April 15 for furnishing lumber, chemicals and plumbers' supplies for the fiscal year ending June 30, 1908, as follows:—

CHEMICALS, ETC.

Bidder 1. M. L. Barrett & Co., Chicago, Ill.
2. E. Clinton & Co., Philadelphia, Pa.
3. Geo. A. Erkenbrach Co., New York, N. Y.
4. M. Feigel & Bro., New York, N. Y.
5. Leon Hirsch & Son, New York, N. Y.
6. Frank Hume, Washington, D. C.
7. Chas. L. Lightenhome, Philadelphia, Pa.
8. Mackall Bros., Washington, D. C.
9. Mechling Bros. Mfg. Co., Camden, N. J.
10. E. J. Murphy Co., Inc., Washington, D. C.
11. Jas. H. Rhodes & Co., Chicago, Ill.
12. Shoemaker & Busch, Philadelphia, Pa.
13. Thompsen Chemical Co., Baltimore, Md.
14. Robert H. Van Shaack, Chicago, Ill.

Item 1. 4,500 lbs. alum, powdered.—Bidder 4, 3.97c.; 5, 2.9c.; 8, 2.02c.; 10, 2c.; 12, 2.4c.; 13, 3c.

2. 40 lbs. aqua ammonia.—Bidder, 8, 8¼c.; 12, 9¾c.; 13, 10c.

3. 20 lbs. borax, pulverized.—Bidder 8, 8.4c.; 12, 8¾c.; 13, 10c.

4. 500,000 lbs. caustic soda, in drums of about 700 lbs.—Bidder 1, 1.81c.; 5, 1.8569c.; 6, 1.9809c.; 9, 1.87¼c.; 12, 1.817c.; 13, 2c.

5. 12,000 lbs. cyanuret of potassa, not less than 98 per cent. pure, in 25-lb. screw-top cans.—Bidder 3, 20.39c.; 5, 21.2c.; 8, 21¼c.; 12, 20.34c.

6. 30 lbs. gum camphor, pure, refined, and compressed.—Bidder 12, $1.38.

7. 30 lbs. gum shellac, orange.—Bidder 7, 40c.; 10, 60c.; 12, 64c.

8. 100 lbs. muriatic acid, commercial.—Bidder 8, 3c.; 10, 5c.; 12, 4¾c.; 13, 5c.

9. 4,000 lbs. salts of tartar, 90 per cent. granulated.—Bidder 1, 89.65c., 98¾c., 48 per cent. car load lots; 5 4.12c.; 12, 5.09c.

10. 60,000 lbs. soda ash, 58 per cent., in bbls.—Bidder 4, 2.12c.; 5, 1.37c.; 12, 1.246c.; 13, 1½c.

11. 50 lbs. sponges, large, Florida sheep's wool, not less than 8 ozs. each.—Bidder 11, $2.50; 12, $2.64; 14, $3.

12. 20 lbs. sponges, small, 60 to lb., reef.—Bidder 11, $1.40; 12, $2.18; 14, $3.50.

13. 100 gals. ethyl alcohol.—Bidder 12, $2.53.

14. 8 doz. nail brushes, 10-row, without wings.—Bidder 12, $8.85.

15. 20 doz. shoe-polishing brushes, equal in style.—Bidder 2, $7; 10, $6.25; 12, $6.18.

16. 400 lights, window glass, first quality.—Bidder 5, 80 per cent. and 10 per cent.; 10, 91 per cent.

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SODA ASH	SALERATUS
SODUXITE	BLEACHING POWDER
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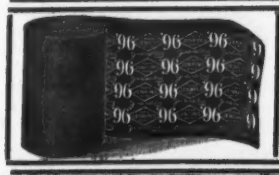

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